inside front cover is left blank
# Table of Contents

Calendar ........................................................................ 4

Welcome ........................................................................ 5

An Overview .................................................................... 6

Admissions ..................................................................... 9

Tuition and Fees ............................................................ 14

Financial Aid ................................................................. 22

Academic Policies ......................................................... 28

Workforce Development ............................................... 35

Notices to Students ...................................................... 37

Organizations, Activities and Housing .......................... 40

Degrees and Certificates ............................................... 42

Course Descriptions .................................................... 98

Faculty and Administrators .......................................... 171

Campus Maps .............................................................. 182

Index ........................................................................... 186

Approved Majors ......................................................... 189
Calendar

For specific enrollment dates, consult the class schedule or the calendar on the website, www.actx.edu.

Fall Term 2005
April 18 ................. Registration begins
August 24 ................. Faculty return
August 29 ................. Classes begin
September 5 ............... Labor Day-College closed
October 28 ............... In-service day-Offices Closed/Classes will meet
November 23 ............. No evening classes
November 24-27 .......... Thanksgiving holidays-College closed
December 12-15 .......... Final exams
Dec. 19-Jan. 1 ............. Christmas Break (Limited services)

Spring Term 2006
November 14 ............. Registration begins
Dec. 15-Jan. 1 ............ Christmas Break (Limited services)
January 2 ................. College offices open
January 9 ................. Faculty return
January 16 ............... Dr. Martin Luther King, Jr. Holiday-College closed
January 17 ............... Classes begin
March 13-19 ............. Spring Break for students and faculty
March 16-19 ............. Spring Break-College closed
April 14 ................... Good Friday-Faculty and Student Holiday-
April 15-16 ............... Easter Holiday-College Closed
May 8-11 ................. Final exams
May 12 ................... Commencement

Summer Session I 2006
April 17 ................... Registration begins
May 29 ................... Memorial Day-College Closed
May 30 ................... Classes begin
July 4 ...................... Independence Day-College Closed
July 6 ...................... Final exams

Summer Session II 2006
April 17 ................... Registration begins
July 10 ..................... Classes begin
August 17 .................. Final exams
As your community college, Amarillo College works hard to bring you high-quality academic and technical programs, plus hundreds of occupational education and leisure study opportunities.

Amarillo College offers affordable tuition, and small classes when (and where) you want them—mornings, afternoons, evenings, even on weekends and on the Internet.

AC is an ideal place to begin your college career. Our transfer programs let you complete the first two years of a bachelor’s degree—conveniently, and at a low cost.

Our technical degrees and certificates provide guaranteed training in fields where job prospects are good and there is the most long-term need for qualified personnel.

This Catalog is an official bulletin of Amarillo College containing policies, regulations, procedures, and fees now in effect.

We urge you to study the contents of this Catalog carefully. As a student, you are responsible for observing the regulations contained within this document.

The College reserves the right to make changes at any time to reflect the current board policies, administrative regulations and procedures, amendments by state law, and fee changes. Course descriptions give a broad outline of course content. Due to instructional differences, some variance in course content may occur. Nothing in the Catalog is to be interpreted as part of a contract. This Catalog is for information only and is subject to change.
An Overview

Mission
Amarillo College, a public community college, is dedicated to providing educational, cultural and community services and resources to enhance the quality of life for the diverse population in the service area.

Goals
I. Maximize student access.
II. Guide students toward educational success.
III. Provide quality general education.
IV. Provide quality transfer education.
V. Provide quality technical education.
VI. Provide quality workforce development opportunities.
VII. Promote employee professional growth and equity.
VIII. Manage institutional resources effectively and efficiently.
IX. Develop alternative resources for the institution.
X. Serve as a community enrichment resource.

Advantages
- Outstanding Faculty – 65 percent of instructors hold a master’s degree; 12 percent of instructors have earned a doctoral degree.
- Individual Attention – Average lecture class size—20 students. Even smaller labs offer the best in hands-on training.
- Transferability – Students can begin their college work at AC and transfer to institutions offering similar programs of study without loss of time or credit.
- Convenient Scheduling – Morning, afternoon, evening and weekend classes, plus courses on television, distance learning courses and courses on the World Wide Web.
- Choice and Variety – More than 160 different programs of study in areas of business, communications, technologies, health occupations, fine arts, social sciences, and sciences and engineering.

History
On July 16, 1929, Amarillo College became the first junior college district in the state to be organized independent of a school district. The first classes were held in September 1929. The College moved to its present location with the construction of its first permanent building in 1937.

After serving primarily as a junior college offering arts and sciences courses, the curriculum was expanded in 1942 to include vocational courses.

In 1958, Amarillo College was granted its own board of regents independent of the trusteeship of the Amarillo Independent School District. The 1960s brought expansion in College facilities and programs. A number of allied health and occupational-technical programs were added to the curriculum along with an extensive array of continuing education and community service courses.
In 1995, state legislation transferred Texas State Technical College - Amarillo to AC. Today, the East Campus (formerly Amarillo Technical Center) continues a 25-year history of meeting the region’s technical education needs.

January 2000 saw the opening of Amarillo College/Moore County Campus in Dumas. The Hereford Campus opens with the Fall 2005 Term.

Amarillo College served more than 10,563 credit students in Fall 2004. During the 2003-2004 academic year, 27,090 continuing education students attended classes at AC’s five Amarillo campuses: the Washington Street Campus, 2201 S. Washington, 371-5000; the West Campus, 6222 W. Ninth, 354-6000; the East Campus, I-40 East and Exit 80, 335-4201; the Business & Industry Center, 1314 S. Polk, 371-2900; and the Moore County Campus, 1220 E. First, Dumas, 934-9220; the Hereford Campus, 239 Avenue H.

**Legislation**

A public junior college is an institution of higher learning, controlled by a local board of trustees or regents, and operated under statutory provisions. A public community college (State Statute 130.003, as amended in Senate Bill 330, 73rd Legislature, effective May 23, 1993) shall be to provide:

1. technical programs up to two years in length leading to associate degrees or certificates;
2. vocational programs leading directly to employment in semiskilled and skilled occupations;
3. freshman and sophomore courses in arts and sciences;
4. continuing adult education programs for occupational or cultural upgrading;
5. compensatory education programs designed to fulfill the commitment of an admissions policy allowing the enrollment of disadvantaged students;
6. a continuing program of counseling and guidance designed to assist students in achieving their individual educational goals;
7. workforce development programs designed to meet local and statewide needs;
8. adult literacy and other basic skills programs for adults;
9. such other purposes as may be prescribed by the Texas Higher Education Coordinating Board or local governing boards in the best interest of post-secondary education in Texas.

**Board of Regents**

Lisa Cherry, Dr. Neal D. Nossaman, Dr. David C. Woodburn  
Terms expire 2006  
Frank O. Nelson, Sharon Oeschger, Lilia B. Escajeba  
Terms expire 2008  
Carroll M. Forrester, Michele Fortunato  
John D. Hicks  
Term Expires 2010

**Central Administration**

Dr. Steven W. Jones .......................President  
Terry Berg ..............................Dean of Finance & Administrative Services  
Dr. R.E. Byrd .............................Vice President of  
Academic Affairs  
Dr. Renea Fike ..........................Dean of Student &  
Academic Development  
Victor Fite ..............................Dean of Informational Systems & Technology  
Dr. Bradley Johnson ...... Dean of College Advancement  
Damaris Schlong .........................Dean of Workforce & Economic Development

**Accreditations**

**INSTITUTIONAL ACCREDITATIONS AND MEMBERSHIPS**

Amarillo College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; (404) 679-4501) to award associate of arts degrees, associate of science degrees, associate of applied science degrees, and certificates of completion.

Amarillo College is a member of:

- the American Association of Community Colleges,
- the American Technical Education Association,
- the Association of Texas Colleges and Universities,
- the National Council for Occupational Education,
- the National Council of Instructional Administrators,
- the Southern Association of Colleges and Schools, Commission on Colleges,
- the Texas Administrators of Continuing Education for Community/Junior Colleges,
- the Texas Association of Community Colleges,
- the Texas Association of School Boards,
- the Texas Community College Teachers Association, and
- the Texas Junior College Association.
- the Texas Association for Community Service and Continuing Education

The Amarillo College President's Office will make available for review to any enrolled or prospective students, upon request, a copy of the document describing the institution's accreditation.

**PROGRAM ACCREDITATIONS AND MEMBERSHIPS**

Specific programs of the College are approved by the Texas Higher Education Coordinating Board.

The Associate Degree Nursing program is accredited by the National League for Nursing (NLNAC, 61 Broadway - 33rd Floor, New York, NY 10006, (212) 363-5555) and the State Board of Nurse Examiners.

The Automotive Technology program is certified by the Automotive Service Excellence, a national institute.
The Aviation Maintenance program is certified by the Federal Aviation Administration.

The Basic Peace Officer and Law Enforcement In Service program are certified by the Texas Commission on Law Enforcement Officer’s Standards and Education (TCLEOSE).

The Center for Continuing Healthcare Education is approved by the Texas Nurses Association as a provider of continuing education in nursing.

The Child Development Lab School is accredited by the National Association for the Education of Young Children.

The Dental Hygiene program is accredited by the American Dental Association.

The Electronics Engineering Technology curriculum is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET).

The Journalism program is certified by the National Community College Journalism Association.

The Medical Laboratory Technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631, (773) 714-8880).

Mortuary Science is accredited by the American Board of Funeral Service Education.

Amarillo College is an accredited institutional member of the National Association of Schools of Music.

The Nuclear Medicine Technology program is accredited by the Joint Review Committee on Education in Nuclear Medicine Technology and by The Nuclear Medicine Technology Certification Board.

The Occupational Therapy Assistant program is accredited by The Accreditation Council for Occupational Therapy Education [P.O. Box 31220, Bethesda, MD 20824-1220, (301) 652-2682] of the American Occupational Therapy Association.

The Radiation Therapy and Radiologic Technology programs are accredited by the Joint Review Committee on Education in Radiologic Technology.

The Physical Therapist Assistant program is accredited by the Commission on Accreditation of Physical Therapy Education.

The Respiratory Care and Surgical Technology programs are accredited by the Committee on Allied Health Education and Accreditation.

The Theatre program is accredited by the Texas Educational Theatre Association.

The Vocational Nursing Program is accredited by the State Board of Vocational Nurse Examiners.

**The AC Foundation, Inc.**

The Amarillo College Foundation, Inc., a nonprofit and tax-exempt foundation, seeks to promote excellence at Amarillo College. The Foundation is governed by a volunteer Board of Directors.

The Foundation exists to solicit and administer gifts and grants for the benefit of Amarillo College, its students, faculty and staff, its programs and facilities.

The Foundation accepts gifts from individuals, groups, and businesses. Support may be designated by the donor for specific purposes or for general unrestricted support of College Foundation activities.

The Foundation accepts gifts in the form of cash, stocks, and property upon approval by the Board of Directors. Many donations are made as memorials for friends or relatives. The Foundation invests these contributions in Texas’ greatest natural resource – its students.

Donors may derive substantial tax advantages through estate planning, trust funds, bequests, and property conveyances to public foundations such as The Amarillo College Foundation.

Private support can mean the difference between mediocrity and excellence at a community college. It can likewise help determine whether a deserving student gets that chance to further his or her education. Those public institutions that have achieved exceptional performance and have produced leaders in each new generation have done so with the help and encouragement of private leadership and private resources.

For additional information, contact the executive director, The Amarillo College Foundation, Inc.; P.O. Box 447; Amarillo TX 79178.
Preparation
Amarillo College does not require completion of specific high school courses for admission. Listed below is the core curriculum recommended by the Texas Education Agency for high school students who plan to enroll in college-level programs.

<table>
<thead>
<tr>
<th>HIGH-SCHOOL CURRICULUM</th>
<th>CREDITS</th>
<th>COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Language Arts</td>
<td>4</td>
<td>English I-IV</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
<td>Three credits to include: Algebra I and Geometry</td>
</tr>
<tr>
<td>Science</td>
<td>2</td>
<td>Two credits to include one from either: Biology, Chemistry, or Physics</td>
</tr>
<tr>
<td>Social Studies</td>
<td>2(^1/2)</td>
<td>Two and one-half credits must consist of: World History Studies (one credit) or World Geography Studies (one credit), U.S. History Studies Since Reconstruction (one credit), and U.S. Government (one-half credit)</td>
</tr>
<tr>
<td>Economics with emphasis on the free enterprise system and its benefits</td>
<td>(\frac{1}{2})</td>
<td>One credit selected from either: World History Studies World Geography Studies Any science course approved by SBOE</td>
</tr>
<tr>
<td>Academic Electives</td>
<td>1</td>
<td>One-half credit selected from either: Communication Applications Speech Communication Public Speaking Debate Oral Interpretation</td>
</tr>
<tr>
<td>Physical Education</td>
<td>1(^1/2)</td>
<td>One credit from any course that includes technology applications</td>
</tr>
<tr>
<td>Health Education</td>
<td>(\frac{1}{2})</td>
<td></td>
</tr>
<tr>
<td>Speech</td>
<td>(\frac{1}{2})</td>
<td></td>
</tr>
<tr>
<td>Technology Applications</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Additional Components</td>
<td>5(^1/2)</td>
<td>Five and one-half credits either: The list of courses approved by the SBOE for Grades 9-12 (related to Essential Knowledge and Skills) State-approved innovative courses JROTC (one to four credits) Driver Education (one-half credit)</td>
</tr>
</tbody>
</table>

TOTAL 22

Amarillo College has an “open door” admissions policy that ensures all people who can benefit from higher education have an opportunity to do so. Our admissions policy does not discriminate on the basis of race, color, national origin, sex, age, religion or disability.

Testing
Legislation requires students entering Texas public colleges and universities be assessed for reading, mathematics, and writing skills be-
fore they enroll in any collegiate course work for credit, unless exempt.

Texas Success Initiative

The Texas Success Initiative (TSI) was established in 2003 by TEC code 51.307. TSI is designed to ensure that students have the academic skills necessary for effective performance in college-level course work. Assessments used at Amarillo College for TSI purposes are THEA (Texas Higher Education Assessment) and ACCUPIACER. Results of these assessments are used by advisors to place students into appropriate course work and to help students achieve academic success at Amarillo College. Assessments are administered by Testing Services located in Room 101 in the Student Service Center. Testing schedules may be obtained in Testing Services or by accessing the Testing Services web page at www.actx.edu/catalog/testing

SUMMARY OF TSI REQUIREMENTS

1. Each student, unless otherwise exempt, who enters Amarillo College to complete a Level-Two certificate or an Associate degree must be assessed in reading, writing, and mathematics skills prior to enrolling in any college-level coursework.

Students enrolling in a Level-One certificate program must adhere to the testing requirements dictated by each program before enrolling. Students need to see their program advisors for testing requirements.

2. High school students are subject to the following guidelines:
   a. A high school student who enrolls in dual credit courses or is concurrently enrolled in both high school and college courses must take a required assessment prior to enrolling in college-level coursework.
   b. A high school student who fails to achieve the minimum passing standard may not take college level classes related to portions of the test that have not been passed. Additionally, the student may not be required to take developmental classes while in high school.

3. Students who are blind must take a required assessment. Appropriate accommodations are available.

4. Students who are deaf and have taken the Stanford Achievement Test may elect to use these scores or may take any approved test. Students who are blind and/or deaf should be encouraged to see the disAbility Services Coordinator for more information.

TESTING EXEMPTIONS AND EXCEPTIONS

Students in any of the following categories or conditions are exempt from testing:

1. Earned within the last five years a composite score of 23 or higher on the ACT test, with individual English and Math scores of at least 19.

2. Earned within the last five years a composite score of 1070 or higher on the SAT test, with individual Verbal and Math scores of at least 500.

3. Earned within the last three years the following minimum scores on the TAAS test: Writing scale score 1770, Reading TLI 89, Math TLI 86.

Note: Regardless of exemption based on TAAS scores, Amarillo College requires these students to take the Amarillo College Math Placement Test and be placed accordingly.

4. Possess an Associate or Bachelor’s degree from a regionally accredited institution of higher education.

5. A student who transfers to Amarillo College from a regionally accredited institution of higher education or an accredited out-of-state institution of higher education and who has satisfactorily completed (C or higher) college-level coursework in math, english and/or reading.

6. Enroll in a Level-One certificate program, a program of 42 or fewer semester credit hours.

Note: Students enrolling in a Level-One certificate program must contact the Program Advisor for required testing and remediation information.

7. A student who is not seeking a degree or certificate. These students:
   • must not be seeking a degree or certificate
   • must meet all Amarillo College admission requirements
   • On application must declare “Educational Goal” to be other than Associate Degree or Certificate of Completion
   • cannot receive federal financial aid
   • must meet all course and testing prerequisites

8. All exceptions and exemptions are subject to change due to legislative and/or THECB decisions.

MINIMUM PASSING STANDARDS

ACCUPLACER:
   • Reading - 78
   • Math - 63 (College Level - 75)
   • Writing - Essay - 6
     (or Essay 5 + Objective 80 or Higher)

THEA:
   • Reading - 230
   • Math - 230 (College Level - 270)
   • Writing - 220

TESTING REQUIREMENTS FOR CERTIFICATE PROGRAMS

Testing requirements for certificate programs vary. Each level-one certificate program has minimum testing requirements. Contact the program advisor for information. An exception to this requirement is the Child Development Administrator Credential Option certificate.
New Student Orientation

All new college students who are enrolled in eight or more hours are required to complete a New Student Orientation session which is designed to promote student success. Students may attend Badger Boot Camp, which is offered in the summer, or one of several two-hour sessions throughout the semester, or successfully complete College Success Techniques (SPCH 1171) or Strategies for Learning (Reading 0103). The orientation reviews services and activities and offers success techniques, as well as an opportunity to ask questions. Students who do not meet this requirement will not be allowed to re-enroll until the requirement is met. Reservations for orientation may be made by contacting the Student Activities Office in the basement of the College Union Building. Transfer students who have successfully completed 12 or more hours with a 2.0 GPA should contact the Student Activities Office for exemption verification.

Admission Requirements

ALL STUDENTS

For admission to all programs, applicants must take the following steps:

• Fill out an application for admission.
• Fill out a Certificate of Residence.

FIRST TIME COLLEGE STUDENTS

• Graduates of accredited high schools must submit to the Admissions Office an official high school transcript to verify graduation.
• General Educational Development Certificate holders must submit an Official Report of Test Results or a copy of the GED Certificate to the Admissions Office.
• Persons who have not graduated from an accredited high school or earned a GED, who are 18 years of age or older, may be admitted on an individual approval basis.
• Persons age 16 or 17 who are no longer attending a high school program, and who have not earned a GED, may be admitted with approval of the Vice President for Academic Affairs. These students will be admitted on probation and advised by the Advising and Counseling Center staff. Testing will be required as a part of the admission decision. Remediation will be required if test scores indicate deficient areas. Students who were schooled in a nontraditional setting must provide notarized documentation of course completion.

CONCURRENT HIGH SCHOOL STUDENTS

• High school seniors seeking early admission must submit written approval from their high school principal or counselor. Concurrent students will be limited to enrollment in no more than two courses per semester.
• High school juniors must meet requirements for seniors and demonstrate college-level reading ability.
• High school students in a nonaccredited or nontraditional setting must be at least age 16 and provide a transcript or notarized statement of courses completed showing at least junior standing. Testing is required to demonstrate college-level reading ability and meet course prerequisites. Students will be advised by Advising and Counseling staff.

TRANSFER STUDENTS

• Certificate and degree seeking students must submit official copies of transcripts from all previous colleges and universities to the Admissions Office.
• Transfer students who are not enrolling to complete a degree or certificate need only submit an official transcript from the last school attended.
• Transfer students who are not on academic suspension at the last institution attended will be admitted unconditionally.
• Transcripts become the property of the College and will not be returned to the student or forwarded to another school. If a transcript is received which shows academic suspension from the last school attended after the student has completed enrollment at Amarillo College, the student will be subject to administrative withdrawal with forfeiture of tuition and fees.

FORMER AC STUDENTS

• Former Amarillo College students who have not attended other colleges or universities will be admitted with submission of application forms.
• Former students who have been out less than one year will be considered as a continuing student and not required to submit application forms.

INTERNATIONAL STUDENT AND INTERNATIONAL TRANSFER STUDENT ADMISSIONS

Students seeking permission to enter the United States on an F-1 student visa authorized by Amarillo College, students who wish to change their temporary visa to F-1, or F-1 visa holders seeking admission to AC as a transfer student must document that all the following requirements are met.

• Must have a sponsor, relative or advocate from Amarillo or the Amarillo College service area that will assist the applicant in meeting admissions requirements and provide support upon arrival and for the duration of their studies. Name, address, and contact information must be provided to the College.
• Evidence of graduation from high school or its equivalent. This document must be an original certified by an official from that school or educational organization that sanctions the school. If the document is not in English, a certified translation must accompany the document.
• Official transcripts from each college or university attended. The transcript must be an original certified by an official of the school or the educational organization that sanctions the school. If the transcript is not in English, a certified translation must accompany the document. Students seeking to transfer course work from international schools must have their transcripts evaluated by an ap-
proven credential evaluation service. The cost of this service will be paid by the student. Three approved services are:

Education Credential Services
P.O. Box 9970
New York, NY 10113-0745
www.ece.org
Foreign Credential Services of America
1910 Justin Lane
Austin, TX 78757-2411
www.fcsa.biz
World Education Services
P.O. Box 5087
Bowling Green Station
New York, NY 10274-5087
www.wes.org

• Minimum TOEFL (Test of English as a Foreign Language) – www.toefl.org – scores of 213 on the computer-based test or 550 on the written version of the test. Official scores must be reported directly from the testing agency, Educational Testing Services, to Amarillo College. When registering for the TOEFL, list institution code 6006 to designate Amarillo College as a school to receive the test results from your exam. Scores which are too old to be sent directly from ETS will not be accepted. Amarillo College does NOT issue student visas for enrollment in our ESL (English as a Second Language) classes. Unless exempt, all degree seeking students entering Texas public colleges and universities must be assessed for reading, mathematics, and writing skills before they enroll in any collegiate course work for credit. Assessment results are used by advisors to place students into appropriate course work for credit. Assessment results are used by advisors to place students into appropriate course work and to help students achieve academic success at Amarillo College. Tests are administered by Testing Services in the Student Service Center, Room 101. See the Testing Services Information Guide on the AC website (www.actx.edu) for details.

• The results of a current physical exam documenting the student is in good health, fit to travel, and free of communicable disease.

• World Health Organization Immunization record showing current immunizations for measles/mumps/rubella.

• Financial records documenting sufficient funds to travel to the United States and pursue an educational program. Bank records should be in the form of a letter signed by a bank official verifying that sufficient funds are on deposit to support the student for up to three years of study. If the student’s local sponsor or advocate wishes to pledge support, an Affidavit of Support form will be provided by Amarillo College and must be completed with a notarized signature.

• A $1,000 (U.S.) tuition deposit must be received by Amarillo College before a student visa will be authorized. The funds should be sent in the form of a bank check or money order payable to Amarillo College. The tuition and fees for the first semester of enrollment will be paid from these funds. Any balance after first semester tuition and fees are paid will be refunded to the student. If the applicant enters the U.S. on a visa authorized by Amarillo College but fails to enroll, the tuition deposit will be forfeited. Students who do not use the visa to enter the U.S. will be eligible for a refund of their tuition deposit.

Application Deadlines: All requirements listed above must be met and documented by the deadlines below in order for Amarillo College to issue an authorization for a student visa, or an I-20 for transfer.

Fall Semester – July 15
Spring Semester – November 15
Summer – Visas and I-20's are not authorized for summer enrollment

Specific Admission Procedures
In addition to the general Amarillo College admission requirements, students must meet additional admission criteria as outlined in the following information:

• Students seeking admission to the following programs must meet additional admission requirements as stated in the individual program guidelines. These programs are: Associate Degree Nursing, Dental Assisting, Dental Hygiene, Fire Protection Technology, Medical Data Specialist, Medical Laboratory Technology, Nuclear Medicine, Occupational Therapy Assistant, Paramedicine Technology, Pharmacy Technology, Physical Therapist Assistant, Radiation Therapy, Radiography, Respiratory Care, Surgical Technology, and Vocational Nursing.

• All students majoring in the health-care fields must provide documented proof that they have been immunized prior to program admission. Students in Allied Health and Nursing should consult their program chair regarding mandatory immunization requirements.

ACCEPTANCE OF TRANSFER COURSE WORK

• Standard academic credits are accepted from colleges and universities accredited by one of the regional accrediting associations. Amarillo College also accepts credits from colleges and universities that are accredited by the American Association of Bible Colleges. Courses in which a grade of "D" was earned will not be accepted as transfer credits at Amarillo College unless the overall GPA from the institution which issued those grades is 2.0 or higher.

• Transferability disputes between state-supported institutions within Texas will be handled in accordance with the guidelines published by the Texas Higher Education Coordinating Board. Issues which cannot be resolved between institutions will be reported to the Commissioner of the Coordinating Board for resolution.
Auditing a Course
Students seeking to audit courses must apply and meet all admission requirements. The student must have permission of the instructor or the department chair in order to audit a class. Having received this permission, they may register on an audit basis at the close of regular registration and then only if space is available. No college credit is awarded for courses that are audited and a grade of “AU” (audit) will be assigned. The cost of auditing courses is the same as registration for credit. Auditors are entitled to attend class and may participate in class discussions and other class activities at the discretion of the instructor. Laboratory courses, skill and individual instruction courses, and clinical courses are not suitable for audit. Approval for audit is valid only for the class and semester specified and is not transferable. Students who elect to enroll on an audit basis may not subsequently change to a credit status.

Changing Course Status

CHANGING FROM CREDIT TO AUDIT STATUS
Students who are enrolled for credit may change to audit status no later than the census date for each semester or term. Refer to the Class Schedule for this date. Permission of the instructor is required. The election to change to audit status will be irreversible. No credit will be awarded and a grade of “AU” (audit) will be assigned.

ADDING A COURSE
To add a course, students must consult an academic advisor. Students may add a course only with the approval of the academic advisor. If a fee is required, the charge is paid at the Assistance Center or other campus Service Centers. No add is official until the student submits the appropriate form to the Assistance Center.

WITHDRAWING FROM A COURSE
It is the responsibility of the student to officially drop or withdraw from a course. Failure to withdraw may result in a grade of “F” for the course. A grade of “W” will be given for student-initiated withdrawals that are submitted on or before the withdrawal deadline for the traditional 16-week schedule (Nov. 23 in the Fall semester and April 20 in the Spring semester).* Students may obtain an Academic Schedule Change Form from an academic advisor, the Advising and Counseling Center, or the Assistance Center.
Withdrawal requests will not be accepted by telephone. Changes are not official until completed forms are submitted to the Assistance Center.

*Certain classes meet outside the traditional 16-week schedule. Please contact the Registrar’s Office for more information.

WITHDRAWING FROM THE COLLEGE
Students who wish to withdraw from all courses must contact the Advising and Counseling Center, located in the Student Service Center, or a counselor at the West, Moore County, Hereford or East campus.

Academic Advising
Amarillo College considers academic advising essential to college success. Advisors assist students with course schedules, academic plans, and transfer or employment information. Students are assigned faculty advisors from the academic program in which they propose to major. Students who have not yet selected a major field of study will be advised by the Advising and Counseling Center. In some instances, students are assigned to an advisor based on test scores or admission status.

While students in most majors are required to seek academic advising, in some programs, continuing students with good academic standing are permitted the option of scheduling courses without advisor approval. Self-scheduling students are cautioned that it is solely their responsibility to ensure that course choices fulfill their curricular or personal requirements. All students are strongly encouraged to confer with an academic advisor each semester they are enrolled at AC.

SGA Banquet
Tuition and Fees

Residency
For tuition purposes, students enrolling in Amarillo College will be classified as follows: (1) resident students, (2) nonresidents of Amarillo Junior College District [students who live in Texas but not in the Amarillo Junior College district; a Texas resident must reside within the Amarillo Junior College District for a period of six months to be classified as a resident student], (3) nonresidents of Texas and (4) foreign students. Exceptions are listed later in this section.

General Rules

MINORS – INDIVIDUALS 17 YEARS OF AGE OR YOUNGER – AND DEPENDENTS
Statute: Section 54.052(a)(3) “Dependent” means an individual who is claimed as a dependent for federal income tax purposes by the individual’s parent or guardian at the time of registration and for the tax year preceding the year in which the individual registers.

Section 54.052(c) An individual who is 17 years of age or under, or is a dependent and who is living away from his or her family, and whose family resides in another state or has not resided in Texas for the 12-month period immediately preceding the date of registration, shall be classified as a nonresident student.

Section 54.052(d) An individual who is 18 years of age or under or is a dependent and whose family has not resided in Texas for the 12-month period immediately preceding the date of registration shall be classified as a nonresident student, regardless of whether he or she has become the legal ward of residents of Texas or has been adopted by residents of Texas while he or she is attending an educational institution in Texas, or within a 12-month period before his or her attendance, or under circumstances indicating that the guardianship or adoption was for the purpose of obtaining status as a resident student.

Section 54.055 An individual who is 17 years of age or under or is a dependent and whose parents were formerly residents of Texas is entitled to pay the resident tuition fee following the parents’ change of legal residence to another state, as long as the individual remains continuously enrolled in a regular session in a state-supported institution of higher education.

INDIVIDUALS OVER 18
Statute: Section 54.052(e) An individual who is 18 years of age or over who has come from outside Texas and who is gainfully employed in Texas for a 12-month period immediately preceding registration in an educational institution shall be classified as a resident student as long as he or she continues to maintain a legal residence in Texas.

Section 54.052(f) An individual who is 18 years of age or over who resides out of the state or who has come from outside Texas and who registers in an educational institution before having resided in Texas for a 12-month period shall be classified as a nonresident student.

Section 54.052(g) An individual who would have been classified as a resident for the first five of the six years immediately preceding registration, but who resided in another state for all or part of the year immediately preceding registration, shall be classified as a resident student.
Section 54.054 A nonresident student classification is presumed to be correct as long as the residence of the individual in the state is primarily for the purpose of attending an educational institution. After residing in Texas for at least 12 months with sufficient documentation of intent to establish of domicile in Texas, a nonresident student may be reclassified as a resident student provided in the rules and regulations adopted by the Higher Education Coordinating Board. Any individual reclassified as a resident student is entitled to pay the tuition fee for a resident of Texas at any subsequent registration as long as he or she continues to maintain his or her legal residence in Texas.

MARRIED STUDENTS
Statute: Section 54.056 A student who is a resident of Texas who marries a nonresident is entitled to pay the resident tuition fee as long as the student does not adopt the legal residence of the spouse in another state.

FOREIGN STUDENTS
Statute: Section 54.057 An alien who is living in this country under a visa permitting permanent residence or who has filed with the proper Federal immigration authorities a declaration of intention to become a citizen has the same privilege of qualifying for resident status for fee purposes under this Act as has a citizen of the United States.

Aliens living in the United States under a visa permitting permanent residence and those permitted by Congress to adopt the United States as their domicile while they are in this country have the same privilege of qualifying for Texas resident status for tuition purposes as do citizens of the United States.

(Note: Only a permanent resident may file with the Federal immigration authorities a declaration of intention to become a citizen.)

Generally, individuals who obtain permanent resident status while in Texas must wait a minimum of 12 months from the date of issue to request resident status for tuition purposes. At that time, they must provide conclusive evidence to indicate that they are in this state to live and reside permanently.

Tuition for students who are citizens of any country other than the United States of America is the same as the tuition required of other nonresident students, unless eligible for HB 1403 Section 2 (see following section on Exceptions).

Exceptions

MILITARY PERSONNEL AND VETERANS
Statute: Section 54.058 Military personnel are classified as provided by this section in the following manner. A person who is an officer, enlisted person, selectee or draftee of the Army, Army Reserve, Air National Guard, Air Force Reserve, Navy, Navy Reserve, Marine Corps, Marine Corps Reserve, Coast Guard, or Coast Guard Reserve of the United States, who is assigned to duty in Texas and the spouse and children of such an officer, enlisted person, selectee or draftee are entitled to register in a state institution of higher education by paying the tuition fee and other fees or charges required of Texas residents, without regard to the length of time the officer, enlisted person, selectee, or draftee has been assigned to duty or resided in the state. It is the intent of the legislature that only those members of the Army or Air National Guard, or other reserve forces mentioned above be exempted from the nonresident tuition fee and other fees and charges only when they become members of the Texas units of the military organizations mentioned above.

JUNIOR COLLEGE TUITION WAIVERS FOR AD VALOREM TAX PAYERS
Statute: Section 130.003(b)(4) The governing board of a public junior college district may waive the difference in the rate of tuition for nonresident and resident students for a person, and his or her dependents, who owns property which is subject to ad valorem taxation by the junior college district.

Texas residents (or their dependents) who move into the Amarillo Junior College District and who own property which is subject to ad valorem taxation by Amarillo Junior College District shall be eligible to enroll at Amarillo College at the tuition rate for resident students.

Those students who think they qualify under the above listed exception, and who can provide conclusive evidence supporting the exception, should contact the Assistance Center in person or the START Center by phone.

UNDocumented ALIENS
A student may be eligible for Texas resident status according to HB 1403, Section 2 if the student:
• graduated or received the equivalent of a high school diploma in this state;
• resided in this state for at least three years as of the date the person graduated from high school or received the equivalent of a high school diploma (three years prior to);
• registers as an entering student in an institution of higher education not earlier than the fall semester; and
• provides to the institution an affidavit stating the individual will file an application to become a permanent resident at the earliest opportunity the individual is eligible to do so.

WAIVER OF NON-RESIDENT TUITION
Students from counties of New Mexico that are adjacent to Texas are eligible to enroll at Amarillo College and pay the non-resident tuition rate. If a dependent student’s family or an independent student from a bordering state moves to Texas after the student has received a waiver of nonresident tuition, the student is eligible for a continued waiver for the 12-month period after the relocation to Texas. After that time, however, the student shall be reclassified as a nonresident unless he or she applies for reclassification and proves he or she has become a resident.
Those students who think they qualify under the above listed exception, and who can provide conclusive evidence supporting the exception, should contact the Assistance Center in person or the START Center by phone.

Responsibilities
Statute: Section 54.0521 Oath of Residency. Before an individual may register at an institution of higher education paying tuition at the rate provided for residents, the individual must affirm under oath, to the appropriate official at the institution, that the individual is entitled to be classified as a resident for purposes of tuition.

Changes of residency status—it is the student's responsibility to notify the institution of any change in circumstances that would result in a change of residency status. This must be done in person, in writing, at any College Service Center. Mailing address changes do not constitute a change of address for residency purposes.

If the institution later determines that the individual was not entitled to be classified as a resident at the time of the individual's registration, the individual shall, not later than 30 days after the date the individual is notified of the determination, pay to the institution the amount the individual should have paid as a nonresident.

If the individual fails to make a timely payment as required by this section, the individual is not entitled to receive a transcript or to receive credit for courses taken during the time the individual was falsely registered as a resident student. Substantiating documentation will be required by Amarillo College to affirm Texas residency.

Fees
Students will not be admitted to classes or labs until they have paid their tuition and fees in full. Payment may be made in cash, by check, by money order, or by credit card (VISA, Mastercard, American Express, Discover). Students paying by check are warned to exercise due care, however, as all checks are accepted subject to final payment by the bank. A check returned by the bank because of a stop payment order or insufficient funds does not cancel a student's registration. If a check given for tuition and fees at registration time is returned by the bank, the student will be charged a service fee.

Students who intend to withdraw from Amarillo College must present the withdrawal form to the Assistance or Service Centers to have their name removed from the official class records. Tuition refund requests must also be presented in writing to the Business Office.

Tuition and fees may be changed at any time by action of the state legislature or by action of the Board of Regents of the Amarillo Junior College District. Students who believe that unusual, individual circumstances deserve special consideration regarding charges and refunds may appeal to the Business Office Manager in the Business Office, Student Service Center, second floor.

STUDENT ALTERNATIVE PAYMENT PLAN
The Payment Plan allows students who are enrolled in full semester-length courses to pay for tuition and fees in installments. The first installment is one-half of the tuition and fees total, plus an administration fee (non-refundable) due at registration; the second installment of one-fourth of the total is due before the sixth class week; and the final installment of one-fourth is due before the eleventh class week. Students who elect to use the Plan must complete and sign a promissory note (plan agreement).

Failure to make timely payments by the due dates will result in the assessment of a delinquent fee. A student who fails to make payment in full, including incidental fees, by the due dates may be prohibited from registering for classes until full payment is made. A student who fails to make payment prior to the end of the semester may be denied credit for the work completed that semester. Refunds due as a result of withdrawal or schedule changes will be applied to the outstanding balance due of the note. The Plan is not available for summer or mini-term sessions.

SENIOR CITIZEN TUITION WAIVER POLICY
A Senior Citizen is defined as “any person 65 years of age or older.” Tuition will be waived on eligible courses on a SPACE AVAILABLE basis; however, the class must reach its minimum paying enrollment, but not its maximum, for the policy to apply. Proof of age and photo identification are required, and the student must pay all course/lab fees.

Continuing Education Courses: A Senior Citizen must complete the “Continuing Education Registration Form.” Continuing education courses that do not meet the criteria for State funding must be self-supporting and are not eligible for the Senior Citizen Tuition Waiver. Ineligible courses include all Leisure Studies courses and most occupational continuing education courses that are less than seven clock hours in length.

Academic Courses: Senior Citizens who are NOT seeking degree credit may enroll in semester credit hour courses on a space available basis after regular registration is complete. The Senior Citizen must complete the “Senior Citizen Tuition Waiver” and may only enroll in academic courses that are eligible for audit. Prior to enrollment, written permission is required from the instructor and the department chair. The tuition waiver is limited to six semester hours.
## Tuition and Basic Fees

### Tuition

**Resident of State of Texas**
- Tuition per semester hour: $30.00
- Minimum tuition: $41.50

**Non-Resident of State/Country**
- Tuition per semester hour: $63.00
- Minimum tuition: $201.50

### Basic Fees

- **All Students:** $8.75 per semester hour, which includes:
  - Matriculation Fee: $6.00 per sem. hr.
  - Student Activity Fee: $1.25 per sem. hr.
  - General Fee: $1.50 per sem. hr.
- **Out/District or State (if applicable):** $15.00 per sem. hr.
- **Learning Resource Fee:** $3.00 per semester
- **Distance Learning Fee (if applicable):** $25.00

### Tuition and Basic Fee Schedule

<table>
<thead>
<tr>
<th>Semester Hour</th>
<th>Resident of District</th>
<th>Non-Resident of District</th>
<th>Non-Resident of State or Foreign</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>53.25</td>
<td>68.25</td>
<td>228.25</td>
</tr>
<tr>
<td>2</td>
<td>80.50</td>
<td>110.50</td>
<td>252.00</td>
</tr>
<tr>
<td>3</td>
<td>119.25</td>
<td>164.25</td>
<td>275.75</td>
</tr>
<tr>
<td>4</td>
<td>158.00</td>
<td>218.00</td>
<td>350.00</td>
</tr>
<tr>
<td>5</td>
<td>196.75</td>
<td>271.75</td>
<td>436.75</td>
</tr>
<tr>
<td>6</td>
<td>235.50</td>
<td>325.50</td>
<td>523.50</td>
</tr>
<tr>
<td>7</td>
<td>274.25</td>
<td>379.25</td>
<td>610.25</td>
</tr>
<tr>
<td>8</td>
<td>313.00</td>
<td>433.00</td>
<td>697.00</td>
</tr>
<tr>
<td>9</td>
<td>351.75</td>
<td>486.75</td>
<td>783.75</td>
</tr>
<tr>
<td>10</td>
<td>390.50</td>
<td>540.50</td>
<td>870.00</td>
</tr>
<tr>
<td>11</td>
<td>429.25</td>
<td>594.25</td>
<td>957.25</td>
</tr>
<tr>
<td>12</td>
<td>468.00</td>
<td>648.00</td>
<td>1,044.00</td>
</tr>
<tr>
<td>13</td>
<td>506.75</td>
<td>701.75</td>
<td>1,130.75</td>
</tr>
<tr>
<td>14</td>
<td>545.50</td>
<td>755.50</td>
<td>1,217.50</td>
</tr>
<tr>
<td>15</td>
<td>584.25</td>
<td>809.25</td>
<td>1,304.25</td>
</tr>
<tr>
<td>16</td>
<td>623.00</td>
<td>863.00</td>
<td>1,391.00</td>
</tr>
<tr>
<td>17</td>
<td>661.75</td>
<td>916.75</td>
<td>1,477.75</td>
</tr>
<tr>
<td>18</td>
<td>700.50</td>
<td>970.50</td>
<td>1,564.50</td>
</tr>
</tbody>
</table>

*Tuition and fees are subject to change by action of the Amarillo College Board of Regents.*

---

**Fallfest**
<table>
<thead>
<tr>
<th>Program</th>
<th>Code</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>ACNT 1311</td>
<td>$20.00</td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>AUMT 1301</td>
<td>$24.00</td>
</tr>
<tr>
<td>Astronomy</td>
<td>ART 1312</td>
<td>$24.00</td>
</tr>
<tr>
<td>Basic Academic Skills</td>
<td>BAS (R,M,W)0101-0103-0202-0203</td>
<td>$20.00</td>
</tr>
<tr>
<td>Biology</td>
<td>BIOL 1108-1109-1406-1407-1411-2106-2374-2401-2402-2404-2421-2428-2471-2472</td>
<td>$18.00</td>
</tr>
<tr>
<td>Business Administration</td>
<td>BUSI 2471</td>
<td>$20.00</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM 1105-1111-1112-1375-1405-1421-1422-2223-2222</td>
<td>$18.00</td>
</tr>
<tr>
<td>Computer Information Systems</td>
<td>BCIS 1301-1405-2431</td>
<td>$20.00</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>CJLE 1429-1506-1512-1518-1524</td>
<td>$24.00</td>
</tr>
<tr>
<td>Dentist Aide</td>
<td>DNTA 1241-1249-1415</td>
<td>$24.00</td>
</tr>
<tr>
<td>Dental Hygiene</td>
<td>DHYG 1260-1261-1304-1319-2261-2360</td>
<td>$24.00</td>
</tr>
<tr>
<td>Drafting</td>
<td>DFTG 1305-1309-1317-1325-1335-1353-1355-1365-1375-1385</td>
<td>$10.00</td>
</tr>
<tr>
<td>Electronics Engineering Technology</td>
<td>CETT 2248-2249-2439</td>
<td>$6.00</td>
</tr>
<tr>
<td>Electronics Systems Technology</td>
<td>CETT 1309-1341-1345-1405-1425-2335</td>
<td>$24.00</td>
</tr>
<tr>
<td>Engineering</td>
<td>ENGR 1304-1307-2301-2302-2405</td>
<td>$16.00</td>
</tr>
<tr>
<td>English</td>
<td>ENGL 0301-1301-1302-2311</td>
<td>$15.00</td>
</tr>
<tr>
<td>Emergency Medical Services Professions</td>
<td>EMSP 1147-1438-1455-1456-1501-2135-2430-2434-2444</td>
<td>$12.00</td>
</tr>
<tr>
<td>Fire Protection Technology</td>
<td>FIRS 1301-1319-1323-1329-1407-1413-1433</td>
<td>$24.00</td>
</tr>
<tr>
<td>FREN 1411-1412-2311-2312</td>
<td>$10.00</td>
<td></td>
</tr>
<tr>
<td>Geology</td>
<td>GEOL 1103-1104-1473</td>
<td>$18.00</td>
</tr>
<tr>
<td>German</td>
<td>GERM 1411-1412-2311-2312</td>
<td>$10.00</td>
</tr>
<tr>
<td>Hazardous Materials Technology</td>
<td>EPCT 1343</td>
<td>$6.00</td>
</tr>
<tr>
<td>Health Physics Technology</td>
<td>OSHT 2372-2373-2374</td>
<td>$6.00</td>
</tr>
<tr>
<td>Home Economics</td>
<td>HECO 1320-1325</td>
<td>$20.00</td>
</tr>
<tr>
<td>Industrial Hygiene Technology</td>
<td>EPCT 1341-2331</td>
<td>$6.00</td>
</tr>
<tr>
<td>Industrial Maintenance Technology</td>
<td>ELMT 1301-1305-1317-1373-1377-1389-2337-2431-2442</td>
<td>$24.00</td>
</tr>
<tr>
<td>Law Enforcement Academy</td>
<td>CJLE 1429-1506-1512-1518-1524</td>
<td>$24.00</td>
</tr>
<tr>
<td>Physic</td>
<td>PHYS 1111-1112</td>
<td>$16.00</td>
</tr>
<tr>
<td>Physical Education</td>
<td>PTED 1111-1112</td>
<td>$8.00</td>
</tr>
<tr>
<td>Plumbing</td>
<td>PLMT 1301-1309-1323-1341-1345</td>
<td>$16.00</td>
</tr>
<tr>
<td>Auto Collision Technology</td>
<td>ABDR 1327</td>
<td>$24.00</td>
</tr>
<tr>
<td>Course Title</td>
<td>Fee</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Interior Design</td>
<td>$6.00</td>
<td></td>
</tr>
<tr>
<td>Instrument &amp; Control Technology</td>
<td>$20.00</td>
<td></td>
</tr>
<tr>
<td>INTC 1301-1305-1309-1315-1348-1355-1356-1358-2336</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTAC 2420-2438</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENTC 1301-2301</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RBTC 1345-2339-2345-2447</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>NDTE 1405-1410-1440-1450-2401-2447</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>Journalism</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>COM 2305-2311-2315-2371</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass Communication</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>COM 1318-2339-2220-2324-2332</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>$6.00</td>
<td></td>
</tr>
<tr>
<td>MATH 0301-0303-1342-2305-2318-2320-2413-2414-2415</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 0302</td>
<td>$7.00</td>
<td></td>
</tr>
<tr>
<td>Medical Data Specialist</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>MRMT 1307-2333</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Laboratory Technology</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>MLAB 1211-1227-1235-1331-1415-2271-2431-2501-2534</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLAB 1223</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortuary Science</td>
<td>$10.00</td>
<td></td>
</tr>
<tr>
<td>MRTS 2432-2445-2447</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>MUSI 1011-1012-1290-1291-2011-2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondestructive Testing and Evaluation</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>NDTE 1405-1410-1440-1450-2401-2470</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>NMTT 1309-1313</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing (Associate Degree)</td>
<td>$12.00</td>
<td></td>
</tr>
<tr>
<td>RNSG 1108-1110-1115-1209-1247-1248-1251-1301-1331-2201-2213-2216-2221-2231-2307</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPRS 1206-2200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSPT 1137</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing (Vocational)</td>
<td>$12.00</td>
<td></td>
</tr>
<tr>
<td>VNSG 1236-1304-1323-1400-1409-2431</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RNSG 1301</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational Therapy Assistant</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>OTHA 1415-2331-2402</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Administration</td>
<td>$12.00</td>
<td></td>
</tr>
<tr>
<td>ACNT 1303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITSC 1309-2322</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITSW 1304-2331</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POFI 2301-2331</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POFT 1127-1309-1329-1345-2203-2301-2312-2333-2343</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paralegal Studies</td>
<td>$20.00</td>
<td></td>
</tr>
<tr>
<td>LGLA 1301-1345-1353-2335</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharmacy Technology</td>
<td>$6.00</td>
<td></td>
</tr>
<tr>
<td>PHRA 1306-1345</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photography</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>PHTC 1306-1313-1341-1343-1345-1347-1349-1353-1391-2341-2343-2345-2349-2353</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARTS 2356-2357</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Therapist Assistant</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>PTHA 1405-1413-1431-2301-2435-2509</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td>$18.00</td>
<td></td>
</tr>
<tr>
<td>PHYS 1101-1102-1105-1375-1415-2373-2425-2426</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS (Astronomy)</td>
<td>$1112</td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>$14.00</td>
<td></td>
</tr>
<tr>
<td>PSYC 1171</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio-Television Production</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>COMM 1336-1337-2303-2339</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTVB 1150-1447-2250-2337</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMED 1351-2341</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiography</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>RADR 1313-1411-2305-2333-2401</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiation Therapy</td>
<td>$20.00</td>
<td></td>
</tr>
<tr>
<td>RADT 1205-1246-1401-2271</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td>$20.00</td>
<td></td>
</tr>
<tr>
<td>RDNG 0301-0321</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RDNG 0331</td>
<td>$21.00</td>
<td></td>
</tr>
<tr>
<td>Real Estate</td>
<td>$18.00</td>
<td></td>
</tr>
<tr>
<td>RELE 1223</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory Care</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>RSPT 1101-1410-1411-2131-2305-2314</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety and Environmental Technology</td>
<td>$6.00</td>
<td></td>
</tr>
<tr>
<td>EPCT 1305-1313-1340-1341-1343-1344-1401-2331-2333</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHT 2374</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td>$10.00</td>
<td></td>
</tr>
<tr>
<td>SPAN 1311-1312-1411-1412-2311-2312</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgical Technology</td>
<td>$20.00</td>
<td></td>
</tr>
<tr>
<td>SRGT 1405-1409-1441-1442</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telecommunications</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>EECT 2433-2435-2439</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSIR 1355</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Welding Technology</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>DFTG 1425</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WLDG 1327-1407-1417-1428-1457-1491-2406-2439-2447</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALLIED HEALTH MALPRACTICE/CLINICAL ACCIDENT INSURANCE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allied Health Malpractice and Clinical Accident Insurance fees are nonrefundable except in cases of college error or total withdrawal prior to the first day of class/clinical.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Development/Early Childhood</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>CDEC 1264-2264-2265</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentist Aide</td>
<td>$12.00</td>
<td></td>
</tr>
<tr>
<td>DNTA 1266</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental Aide</td>
<td>$12.00</td>
<td></td>
</tr>
<tr>
<td>DHYG 1260-1261-2261-2360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronics Technology</td>
<td>$24.00</td>
<td></td>
</tr>
<tr>
<td>CETT 2248-2249</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOM 2335-2339</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note: Per Student Basis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Medical Services Professions</td>
<td>$35.00</td>
<td></td>
</tr>
<tr>
<td>EMSP 1163</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMSP 2266-2267</td>
<td>$70.00</td>
<td></td>
</tr>
</tbody>
</table>

Per Student Basis
Medical Data Specialist ........................................... $24.00
POFM 1264

Medical Laboratory Technology
MLAB 2266-2267 ........................................... $12.00
PLAB 1163 ................................................... $24.00

Mortuary Science
MRTS 1310......................................................... $24.00
MRTS 1360-2360 ........................................... $12.00

Nursing (Associate Degree) ........................................... $4.00
RNSG 1105-1115-1260-1262-1263-1301-1362-1409-2161-2163-2260-2261-2262-2263

Nursing (Vocational) ........................................... $4.00
VNSG 1163-1323-1360-1361-1409-2160-2161-2163
RNSG 1301

Occupational Therapy Assistant
OTH A 1160 ........................................................... $24.00
OTH A 2160-2266-2267 .......................................... $8.00

Pharmacy Technology ........................................... $24.00
PHRA 1166

Physical Therapist Assistant ........................................... $12.00
PTHA 1160-1267-2160-2367

Radiologic Technology
(Nuclear Medicine) ............................................... $8.00
NMTT 1266-1267-2266-2267-2366-2367

(Radiography) ..................................................... $8.00
RAD R 1166-1266-1267-2266-2267-2367

(Radiation Therapy) ........................................... $55.00
RAD T 1266-1267-2266-2267-2367

Respiratory Care ....................................................... $8.00
RSPT 1163-1166-1167-2160-2266-2267

Surgical Technology ........................................... $8.00
SRGT 1261-2360-2461

GENERAL FEES (not required of all students)

Posting Fee -
Credit for Licensure (per course) ...................... $5.00

Credit by Examination (per course) ..................... $15.00

Graduation - Special Order Diploma .................. $10.00

Distance Learning Fee (if applicable) ................. $25.00

Music (Private Lessons)
MUAP 11XX-21XX .................................................. $80.00
(Elective/Minor Concentration 1/2 Hour Lessons)
MUAP 12XX-22XX ................................................ $160.00
(Elective/Major Concentration 1 Hour Lessons)

Nursing - (Associate Degree) ................................... $65.00
Students enrolled in a nursing course(s) in the Associate Degree Nursing program will be charged a fee of $65.00 per semester for access to the MEDS Publishing Learning System RN exams.

Nursing - (Vocational)
Level I ................................................... $27.00
Students enrolling in Vocational Nursing program Level I will be charged $27 per course for VNSG 1323, 1236, 1304, 1400, and 1360.

Level II ............................................................... $15.00
Those enrolling in Level II will be charged $15 per course for VNSG 1230, 2160, 1234, 2161, 1409, 1361, 2431, and 2163 for access to the Assessment Technologies Institute testing and tutorial software.

Paralegal Studies ...................................................... $40.00
(Paralegal Studies majors enrolled in one or more of the following LGLA courses during the academic school year are required to pay a $40 annual fee for online legal research access: LGLA 1301-1307-1309-1343-1345-1351-1353-1355-2266-2303-2305-2313-2335)

Physical Education
PHED classes held at Carter Fitness Center and Russell Hall ........................................... $15.00

PHED classes held at Downtown Athletic Club and Gold’s Gym ........................................... $90.00
PHED 1111-1112-2111-2112 (Swimming) ....... $90.00
PHED 1116-2116 (Bowling) ............................... $37.50
PHED 1117-2117-2127 (Golf) ......................... $50.00

Travel and Tourism ................................................... $45.00
TRVM 1406-2435

REFUNDS
If a class does not materialize and is canceled by the college, 100 percent of all tuition and fees charged will be refunded. Students who officially withdraw from Amarillo College prior to the sixth day of class for full-length courses and prior to the third class day for Summer will be refunded 100 percent of their mandatory tuition and fees. If a transcript received by Amarillo College after a student has completed enrollment shows that the student is suspended at the last college attended, the student is subject to being withdrawn with forfeiture of all tuition and fees. Likewise, any student who provides false information about TSI testing or scores will be subject to being withdrawn with forfeiture of tuition and fees. Students who officially withdraw or reduce their course enrollment on or after the sixth day of classes for full-length courses after the third class day for Summer will have their tuition and mandatory fees refunded according to the following schedule:

Fall and Spring Semesters (16 week courses)
During first 5 class days ......................................... 100 percent
During 6th through 15th class days ................. 70 percent
During 16th through 20th class days ............... 25 percent
After the 20th class day ........................................ None

Summer Semesters (6 week courses)
During the first 2 class days ......................... 100 percent
During the 3rd through 5th class days ........... 70 percent
During the 6th class day ........................................ 25 percent
After the 6th class day ........................................ None

If not 16 week or 6 week courses please see Class Schedule.

Tuition and fees paid directly to Amarillo College by a sponsor, donor or scholarship shall be refunded to the source rather than directly to the student.

If not 16 week or 6 week courses please see Class Schedule.
SHORT-TERM ACADEMIC CLASSES REFUND POLICY

Students who enroll in short-term academic classes at times other than regularly scheduled full-term registrations are eligible for refunds on those courses.

SPECIAL SUPPLIES AND EQUIPMENT

In some programs, special supplies, equipment, or hand tools are considered essential for the satisfactory completion of the laboratory portion of the course and are required in addition to textbooks. In other programs, additional supplies and equipment are considered beneficial and are recommended but are not required. Following are the estimated costs of these items for each program. Students should contact the respective departments to determine whether the special supplies and equipment are recommended or required. In most cases the items may be obtained through the Amarillo College Bookstore on the campus in which the program is offered.

<table>
<thead>
<tr>
<th>Program</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td></td>
</tr>
<tr>
<td>Drawing</td>
<td>$15.00 - $150.00</td>
</tr>
<tr>
<td>Ceramics</td>
<td>$15.00 - $25.00</td>
</tr>
<tr>
<td>Painting</td>
<td>$75.00 - $350.00</td>
</tr>
<tr>
<td>Automotive Collision Repair</td>
<td>$1,550.00</td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>$1,115.00 - $1,775.00</td>
</tr>
<tr>
<td>Aviation Technology</td>
<td>$950.00-$1,610.00</td>
</tr>
<tr>
<td>Dentist Aide</td>
<td>$400.00</td>
</tr>
<tr>
<td>Dental Hygiene</td>
<td>$3,500.00</td>
</tr>
<tr>
<td>Diesel Mechanics Technology</td>
<td>$1,115.00-$1,775.00</td>
</tr>
<tr>
<td>Drafting</td>
<td>$600.00</td>
</tr>
<tr>
<td>Electronics</td>
<td></td>
</tr>
<tr>
<td>Engineering Technology</td>
<td>$25.00 - $100.00</td>
</tr>
<tr>
<td>Electronic Systems Technology</td>
<td>$300.00</td>
</tr>
<tr>
<td>Geology</td>
<td>$20.00 - $50.00</td>
</tr>
<tr>
<td>Human Anatomy &amp; Physiology I &amp; II</td>
<td>$10.00</td>
</tr>
<tr>
<td>Industrial Maintenance</td>
<td>$200.00</td>
</tr>
<tr>
<td>Instrument and Control Technology</td>
<td>$250.00</td>
</tr>
<tr>
<td>Interior Design</td>
<td>$300.00 - $600.00</td>
</tr>
<tr>
<td>Medical Data Special</td>
<td>$75.00</td>
</tr>
<tr>
<td>Medical Laboratory Technology</td>
<td>$600.00 - $900.00</td>
</tr>
<tr>
<td>Microbiology</td>
<td>$15.00</td>
</tr>
<tr>
<td>Mortuary Science</td>
<td>$60.00 - $700.00</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>$200.00-$400.00</td>
</tr>
<tr>
<td>Nursing</td>
<td></td>
</tr>
<tr>
<td>ADN</td>
<td>$350.00 - $800.00</td>
</tr>
<tr>
<td>Vocational</td>
<td>$300.00 - $800.00</td>
</tr>
<tr>
<td>Office Administration</td>
<td>$15.00 - $45.00</td>
</tr>
<tr>
<td>Photography - Equipment**</td>
<td>$200.00 - $2,500.00</td>
</tr>
<tr>
<td>Supplies (per semester)**</td>
<td>$60.00 - $300.00</td>
</tr>
<tr>
<td>Radiography</td>
<td>$300.00 - $600.00</td>
</tr>
<tr>
<td>Respiratory Care</td>
<td>$75.00 - $150.00</td>
</tr>
<tr>
<td>Welding</td>
<td>$150.00-$200.00</td>
</tr>
</tbody>
</table>

**Not supplied by Amarillo College Bookstore**
Financial aid is a means of reducing a student’s educational costs. Such costs include direct expenses, such as tuition, fees, books and supplies, and indirect expenses, such as room and board, transportation and personal expenses. Aid is available to students through state, federal and local government; through many private sources, such as industrial, service, civic and fraternal groups; and directly through colleges and universities.

Awards at Amarillo College are made on the basis of financial need, academic progress, achievement or other qualifications required by the donors of the funds. The financial need of a student is the difference between reasonable expenses during an academic year and the amount which the student/family can be expected to contribute toward these expenses. This is called the “Expected Family Contribution.”

Students must be enrolled at least half-time at Amarillo College to be eligible for most financial aid. Federal Pell grants can be paid to less-than-half-time students. For financial aid purposes, less than half-time means that a student must be enrolled in 1-5 credit hours; half-time, 6-8 credit hours; three-quarter time, 9-11 credit hours; and full-time, 12 credit hours or more.

The U.S. Department of Education frequently changes regulations pertaining to financial aid. Amarillo College attempts to comply with all legislative mandates and Federal regulations. The Financial Aid Office reserves the right to make policy and procedure changes during the award year.

Students who are in default on a Guaranteed Student Loan from any institution may enroll for classes at Amarillo College but will not be able to receive an official academic transcript or any financial aid as long as any Guaranteed Student Loan is in default.

Rights and Responsibilities
You have the right to ask:

- What financial assistance is available?
- What are the deadlines for submitting applications?
- What is the cost of attending and refund policies?
- What is the criteria used to select financial aid recipients?
- How is financial need determined?
- What is the criteria used to determine the amount of a student’s award?
- What is satisfactory academic progress and how does it affect the student?

It is your responsibility to:

- Be informed about the institution before you enroll.
- Complete all forms accurately and submit them on time.
- Read and understand forms you are asked to sign.
- Know and comply with deadlines.
- Keep all personal information, such as address, telephone number, name, grants, scholarships, and school status up to date with the Assistance Center and Financial Aid Office.
- Accept responsibility for all agreements you sign.
Ability to Benefit

To receive Title IV (Federal) funds at Amarillo College, a student must have a high school diploma or have passed the General Educational Development Test (GED). A student who does not have a high school diploma or GED must pass an examination approved by the U.S. Department of Education before receiving Federal funds. The ACCUPLACER Test is the approved examination used by Amarillo College and is independently administered by the Testing Center at Amarillo College. In addition to other Accuplacer Requirements, students must also request and pass the arithmetic exam.

Types

MAJOR PROGRAMS
Federal regulations require that in order for a degree or certificate program to be eligible for Title IV funds, the program must consist of at least 24 semester hours and have Department of Education approval. The Amarillo College Catalog lists programs of less than 24 semester hours; however, students who enroll in these majors will not be eligible for Title IV funds. “Pending” or non-degree seeking are not eligible programs.

GRANTS AND SCHOLARSHIPS
Amarillo College provides a comprehensive program of grants, scholarships and work opportunities to assist students in their academic pursuits. Interested students should contact the Financial Aid Office.

LOANS
Emergency Loans are for educational and related expenses, bear no interest, and require repayment within 30 days. The maximum emergency loan is $50. Application can be made at the Financial Aid Office.

The Federal Family Education Loan Program permits students who are eligible to obtain low-interest loans from a lending institution. The Free Application for Federal Student Aid (FAFSA) must be filed prior to applying for a loan.

FEDERAL WORK-STUDY AND STUDENT WORKERS
The Federal Work-Study Program and Institutional Work Study provides jobs for students on campus. Students must be enrolled at least half-time, and for Federal Work Study establish need by filling out the Free Application for Federal Student Aid (FAFSA).

HAZELWOOD ACT
Veterans who were residents of Texas at the time of enlistment in the Armed Forces, who are Texas residents at the time of enrollment and have resided in Texas for at least the past 12 months, and who are not eligible for VA assistance or any educational benefits under Federal legislation in effect at the time of registration may apply for exemption from payment of tuition under the Hazelwood Act. This application is made through the Financial Aid Office and requires that a copy of the student’s WD53 or DD214 be filed with this office.

A veteran who is eligible for Federal education benefits (e.g. Pell) may receive Hazelwood if his or her benefits are less than the exemption. Example, if a veteran who would have qualified for $750 exemption through Hazelwood received a $200 Pell Grant, the student could receive an exemption for $550. Conversely, if the Federal education benefits are greater than the exemption, the student must use the federal education benefits and will NOT be eligible for Hazelwood.

There is a maximum of 150 credit hours for which a person may receive benefit under Hazelwood. This limit is on credit hours attempted, not credit hours completed.

VETERANS AFFAIRS
Amarillo College is approved by the Texas Education Agency to offer instruction to students attending college under the various laws commonly referred to as the GI Bill. Eligible students should contact the Veterans Certification Clerk, in the Registrar’s Office, prior to registration to obtain needed information relative to their benefits, enrollment and certification of attendance.

Tuition and fees must be paid by the student. Those depending solely on VA benefits should have all paperwork completed with the AC Veterans Affairs Office and a request for advance payment submitted at least 60 days before registration.

Students must advise the AC Veterans Certification Clerk each semester of hours in which they are enrolled and should contact the clerk when making course changes, a change of major, or when withdrawing from college. Academic probation or suspension (unsatisfactory progress) as described on page 29 may result in suspension of benefits.

Veterans Rehabilitation: Application for this assistance should be made to the Vocational Rehabilitation and Counseling Division, VA Outpatient Clinic, 6104 Ave. Q South Drive #900, Lubbock, Texas 79412.

REHABILITATION ASSISTANCE
The Texas Rehabilitation Commission offers assistance for tuition and required fees to students who have certain physical or emotional handicaps, provided the vocational objective selected by the handicapped person has been approved by an appropriate representative of the Commission. Application for this type of assistance should be made to the Texas Rehabilitation Commission, 5809 S. Western, Amarillo, Texas 79109.

How to Apply for Financial Aid
The financial aid award will be packaged from a variety of sources and will be based on the financial need and program eligibility of the student and, of course, the availability of funds. Students are advised to apply for all types of aid.

Federal, State and College regulations concerning financial aid can change from year to year. All students should request a financial aid application from the Financial Aid Office and designate in their request the semester in which they plan to enroll.
The instructions provided on these forms must be followed carefully; inaccurate or incomplete information will cause delays in the processing of the application. Applications for financial aid will not be considered complete until all required forms are on file in the Financial Aid Office.

Amarillo College requires students applying for financial aid to submit the following:

- The Free Application for Federal Student Aid to the Department of Education. Apply on-line at www.fafsa.ed.gov
- The Amarillo College Scholarship Application to the Foundation Office, Room 206, College Union Building if applying for an academic scholarship.

All applications are available in the Assistance Center. Students should apply early and must reapply each year.

Any student or prospective student desiring specific program information may call (806) 371-5310 or come to the Financial Aid Office in the Student Service Center.

**Rules**

**SATISFACTORY ACADEMIC PROGRESS POLICY**

Federal regulations require any institution that disburses Federal Title IV student aid (grants, loans and federal work study) to establish, publish and observe a Satisfactory Academic Progress Policy (SAP). SAP is a standard for measuring whether a student is maintaining satisfactory progress in his or her course of study. A student’s total academic record at Amarillo College is used to measure satisfactory progress even if the student did not previously receive aid. Student financial aid as defined in this policy applies to Federal Title IV and state aid.

**ELIGIBILITY**

To be eligible to begin receiving student financial aid at Amarillo College, a student must meet the following criteria:

- Graduated from high school, pass a GED, or pass an approved U.S. Department of Education test (the approved test used by Amarillo College is the Accuplacer test);
- Declare a major in a degree or certificate program of no less than 24 semester hours;
- Previous academic history at Amarillo College must reflect a 2.0 grade point average (GPA) and completion of 80 percent of the courses for which they have enrolled.
- The number of hours attempted cannot exceed 150 percent of the published length of the student’s major (please see Maximum Time Frame).

**MAINTAINING ELIGIBILITY**

To maintain eligibility, a student must meet the following criteria:

- Not have completed 150 percent or more of the number of hours required for their declared degree program (please see Maximum Time Frame).
- Maintain a GPA of 2.0 or better.
- Complete the enrollment status for which the student is funded:

<table>
<thead>
<tr>
<th>Funding At</th>
<th>Must Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>12+ semester hours</td>
</tr>
<tr>
<td>Three-quarter time</td>
<td>9-11 semester hours</td>
</tr>
<tr>
<td>Half-time</td>
<td>6-8 semester hours</td>
</tr>
<tr>
<td>Less-than-half time</td>
<td>at least 1 semester hours</td>
</tr>
</tbody>
</table>

**For Grant Recipients:**

Enrollment status is based upon the number of semester hours a student is enrolled by the 12th class date. Students can add and drop classes up to the 12th class date and receive funding for the number of hours in which they are enrolled.

**For recipients of Guaranteed Student Loan Funding:**

Enrollment status is based upon the number of semester hours in which the student is enrolled either on the date the first loan check is disbursed or the 12th class day, whichever is last.

**INELIGIBILITY**

Students may lose eligibility to receive financial aid if the student:

- Does not complete the hours for which they are funded (dropping classes);
- Drop below a 2.0 GPA.

The first semester in which one of the above situations occurs, the student will go on Financial Aid Probation. Once on probation, the student can receive Title IV financial aid for the following or future semesters, but must complete all classes funded for and maintain a 2.0 GPA. If the student completes the minimum number of hours based on his/her enrollment status and maintains a 2.0 GPA during the next semester attended with financial aid, the student’s status will return to satisfactory. Failure to complete hours or maintain a 2.0 GPA while on Financial Aid Probation will result in the student going on Financial Aid Suspension at the end of the semester. Students on Financial Aid Suspension may NOT receive Federal Title IV funding or state funds.

Completing 150 percent of your degree or certificate program will always result in a student going on Financial Aid Suspension, but a student may appeal to the Financial Aid Committee.

**MAXIMUM TIME FRAME**

The maximum time frame in which a student must complete his or her degree can be no longer than 150 percent of the published length of the student’s major. For example: if the Amarillo College Catalog lists a major which is 64 hours in length, the student will automatically be placed on suspension for maximum time frame after the student has attempted 96 hours, which is 150 percent of the 64 hours required for the major (64 x 1.5 = 96).

**REPEATED COURSES**

Any course in which an I, W, X, N or AU is received does not count as a completed course. Students may
receive funding for repeated courses; however, both the repeated course and the original course will be counted towards 150 percent of the declared degree or certificate.

REMEDIAL/DEVELOPMENTAL COURSES
Students required to enroll in remedial or developmental courses are eligible for financial aid as long as the total number of remedial/developmental hours attempted does not exceed 30 semester hours.

FINANCIAL AID SUSPENSION
Students must first make an appeal to the Financial Aid Review Committee. Criteria that may influence the committee’s decision include: class attendance, completion of assignments, substantiated academic progress in courses required for a degree, unusual circumstances, use of campus supportive services, and timely response to Financial Aid Office contracts.

Students in good academic standing may appeal the Financial Aid Review Committee’s decision regarding their financial aid suspension through the Amarillo College Financial Aid Appeals Committee; Written procedures are available in the Financial Aid Office.

Students on financial aid suspension, for reasons other than Maximum Time Frame, may remove themselves from financial aid suspension if they successfully complete 6 consecutive semester hours with no drops and a 2.0 GPA for those 6 semester hours.

During the time a student is attempting to complete credit hours to remove themselves from suspension, any class in which an I, W, X, N or AU will negate all hours attempted to this point. Therefore, the student would begin the above process again to remove themselves from suspension.

After completing the 6 consecutive hours, the student would be placed on financial aid probation. Students using summer hours to lift suspension will not be removed from suspension until the completion of the entire Summer semester. Upon completion of their consecutive hours, the student must submit a review request to the Financial Aid Office.

AWARD PROCESS
Awards will be made in date order in which files are complete. FSEOG will be awarded only to Pell recipients in lowest EFC order. Awards will be made according to the policy until all FSEOG funds are used.

Amarillo College preference dates for filing for financial aid are as follows:
Fall Semester - March 31
Spring Semester - October 28
Summer Semester - April 1

This means students’ files must be complete by the above dates, if a student is to be awarded by the beginning of that term. These dates are not deadlines, other than the term commitment, and they are in no way cut-off dates for types and amounts of aid. Notification of the total amount of aid awarded, as well as the amount of aid awarded through each program, will be mailed to eligible students in the form of an “award letter.”

RELEASE OF FUNDS
Financial Aid funds will be released according to Federal guidelines and the Financial Aid Disbursement schedule, available from the Financial Aid Office. Students with incomplete applications should make arrangement to pay their initial expenses (e.g. tuition, books) from their own resources. Once the application is complete eligible students will receive funds as soon as possible.

Payments are made in two forms:
• A charge to the appropriate grant or loan account
• A check payable to the student

All checks payable to the student will be mailed. Federal-Work Study employment earnings are paid every two weeks. Any financial aid funds issued will first be applied to the balance due Amarillo College before being issued to students.

REFUNDS
A refund policy which states how the College treats refunds to Title IV recipients is available in the Financial Aid Office. According to the provisions of the Higher Education Amendments of 1998, if a student withdraws or stops attending classes on or before the 60 percent point of the period of enrollment (Pell Grant, SEOG, Stafford Loan and Title IV portion of LEAP) funds awarded to the student must be returned. The calculation of the return of these funds may result in the student owing a balance to Amarillo College and/or the Federal Government.

PLEASE NOTE: Financial aid rules and regulations can be very confusing. Please call the Financial Aid Office for assistance or explanations (371-5310).
### 2005-2006 Student Budget
9 Months
Full-time (15 hours)

<table>
<thead>
<tr>
<th></th>
<th>In District</th>
<th>L/T</th>
<th>Out of District</th>
<th>L/T</th>
<th>Out of State</th>
<th>L/T</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIRECT COSTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tuition/Fees</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>$ 587.25</td>
<td>$ 587.25</td>
<td>$ 812.25</td>
<td>$ 812.25</td>
<td>$ 1,307.25</td>
<td>$ 1,307.25</td>
</tr>
<tr>
<td>Spring</td>
<td>$ 587.25</td>
<td>$ 587.25</td>
<td>$ 812.25</td>
<td>$ 812.25</td>
<td>$ 1,307.25</td>
<td>$ 1,307.25</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$1,174.50</td>
<td>$1,174.50</td>
<td>$1,624.50</td>
<td>$1,624.50</td>
<td>$2,614.50</td>
<td>$2,614.50</td>
</tr>
<tr>
<td><strong>Books/Supplies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>$ 413.00</td>
<td>$ 144.00</td>
<td>$ 413.00</td>
<td>$ 144.00</td>
<td>$ 413.00</td>
<td>$ 413.00</td>
</tr>
<tr>
<td>Spring</td>
<td>$ 413.00</td>
<td>$ 144.00</td>
<td>$ 413.00</td>
<td>$ 144.00</td>
<td>$ 413.00</td>
<td>$ 413.00</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$ 826.00</td>
<td>$ 288.00</td>
<td>$ 826.00</td>
<td>$ 288.00</td>
<td>$ 826.00</td>
<td>$ 826.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$2,000.00</td>
<td>$1,462.00</td>
<td>$2,450.00</td>
<td>$1,912.00</td>
<td>$3,440.00</td>
<td>$2,902.00</td>
</tr>
<tr>
<td><strong>INDIRECT COSTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>I. Living at home</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room</td>
<td>$ 561.00</td>
<td></td>
<td>$ 561.00</td>
<td></td>
<td>$ 561.00</td>
<td></td>
</tr>
<tr>
<td>Board</td>
<td>$1,695.00</td>
<td></td>
<td>$1,695.00</td>
<td></td>
<td>$1,695.00</td>
<td></td>
</tr>
<tr>
<td>Trans.</td>
<td>$1,024.00</td>
<td></td>
<td>$1,443.00</td>
<td>$ 304.00</td>
<td>$1,443.00</td>
<td>$ 304.00</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$3,280.00</td>
<td></td>
<td>$3,699.00</td>
<td>$ 304.00</td>
<td>$3,699.00</td>
<td>$ 304.00</td>
</tr>
<tr>
<td><strong>II. Living at home with dependent(s)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room</td>
<td>$1,377.00</td>
<td></td>
<td>$1,377.00</td>
<td></td>
<td>$1,377.00</td>
<td></td>
</tr>
<tr>
<td>Board</td>
<td>$2,102.00</td>
<td></td>
<td>$2,102.00</td>
<td></td>
<td>$2,102.00</td>
<td></td>
</tr>
<tr>
<td>Trans.</td>
<td>$1,024.00</td>
<td></td>
<td>$1,443.00</td>
<td>$ 304.00</td>
<td>$1,443.00</td>
<td>$ 304.00</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$4,503.00</td>
<td></td>
<td>$4,922.00</td>
<td>$ 304.00</td>
<td>$4,922.00</td>
<td>$ 304.00</td>
</tr>
<tr>
<td><strong>III. Not living at home</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room</td>
<td>$2,811.00</td>
<td></td>
<td>$2,811.00</td>
<td></td>
<td>$2,811.00</td>
<td></td>
</tr>
<tr>
<td>Board</td>
<td>$2,353.00</td>
<td></td>
<td>$2,353.00</td>
<td></td>
<td>$2,353.00</td>
<td></td>
</tr>
<tr>
<td>Trans.</td>
<td>$1,024.00</td>
<td></td>
<td>$1,443.00</td>
<td>$ 304.00</td>
<td>$1,443.00</td>
<td>$ 304.00</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$6,188.00</td>
<td></td>
<td>$6,607.00</td>
<td>$ 304.00</td>
<td>$6,607.00</td>
<td>$ 304.00</td>
</tr>
<tr>
<td><strong>IV. Living in on-campus housing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room</td>
<td>$1,570.00</td>
<td></td>
<td>$1,570.00</td>
<td></td>
<td>$1,570.00</td>
<td></td>
</tr>
<tr>
<td>Board</td>
<td>$2,040.00</td>
<td></td>
<td>$2,040.00</td>
<td></td>
<td>$2,040.00</td>
<td></td>
</tr>
<tr>
<td>Trans.</td>
<td>$1,024.00</td>
<td></td>
<td>$1,024.00</td>
<td>$ 304.00</td>
<td>$1,024.00</td>
<td>$ 304.00</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$4,634.00</td>
<td></td>
<td>$4,634.00</td>
<td>$ 304.00</td>
<td>$4,634.00</td>
<td>$ 304.00</td>
</tr>
<tr>
<td><strong>Pers./Misc.</strong></td>
<td>$1,215.00</td>
<td></td>
<td>$1,215.00</td>
<td></td>
<td>$1,215.00</td>
<td></td>
</tr>
<tr>
<td><strong>GRAND TOTALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.</td>
<td>$6,495.00</td>
<td>$ 1,700.00</td>
<td>$ 7,364.00</td>
<td>$ 2,216.00</td>
<td>$ 8,354.00</td>
<td>$3,206.00</td>
</tr>
<tr>
<td>II.</td>
<td>$7,718.00</td>
<td>$ 1,700.00</td>
<td>$ 8,587.00</td>
<td>$ 2,216.00</td>
<td>$ 9,577.00</td>
<td>$3,206.00</td>
</tr>
<tr>
<td>III.</td>
<td>$9,403.00</td>
<td>$ 1,700.00</td>
<td>$10,272.00</td>
<td>$ 2,216.00</td>
<td>$11,262.00</td>
<td>$3,206.00</td>
</tr>
<tr>
<td>IV.</td>
<td>$7,849.00</td>
<td>$ 1,700.00</td>
<td>$ 8,299.00</td>
<td>$ 2,216.00</td>
<td>$ 9,289.00</td>
<td>$3,206.00</td>
</tr>
</tbody>
</table>

Adjustment for child care if indicated on General Application: one child $2,775; two children $5,223; three children $7,671; additional children add $1,297 per child. No child care for less than half time. Tuition costs are subject to change.
## Financial Aid at a Glance

<table>
<thead>
<tr>
<th>Program</th>
<th>Eligibility</th>
<th>Value</th>
<th>How to Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal Pell Grant</td>
<td>Financial need, enrollment</td>
<td>Varies for Federal Student Aid (FAFSA)</td>
<td>Complete a Free Application</td>
</tr>
<tr>
<td>Federal SEOG (Supplemental Education)</td>
<td>Financial need, enrollment</td>
<td>$100 to $400 a year</td>
<td>Complete a Free Application for Federal Student Aid (FAFSA)</td>
</tr>
<tr>
<td>TPEG (Texas Public Education Grant)</td>
<td>Financial need, enrollment</td>
<td>$100 to $600</td>
<td>Complete a Free Application for Federal Student Aid (FAFSA)</td>
</tr>
<tr>
<td>LEAP (Leveraging Educational Assistance Partnership Program (formerly SSIG))</td>
<td>Financial need, enrolled at least half-time</td>
<td>$100 to $600 per semester</td>
<td>Complete a Free Application for Federal Student Aid (FAFSA)</td>
</tr>
</tbody>
</table>
| TEXAS (Texas Excellence Access and Success)  | 2.5 GPA to continue award, financial need, enrolled at least 3/4 time, Texas resident | $635 per semester                      | • Inquire at Financial Aid Office  
• Complete Free Application for Federal Student Aid (FAFSA) |
| TEXAS II (Toward Excellence, Access and Success II) | 2.0 GPA, employment, financial need, enrolled at least half-time, Texas resident | $635 per semester                      | • Inquire at Financial Aid Office  
• Complete Free Application for Federal Student Aid (FAFSA) |
| **Loans**                                    |                                  |                                        |                                           |
| Emergency Loan                               | 2.0 GPA, repaid within           | $50 maximum                             | Application at Financial Aid               |
| Federal Family Education Loan (FFELP)        | Financial need, enrolled at least half-time | Varies, in certain instances a student’s FFELP must be prorated | • FAFSA and Master Promisory Note  
• AC Financial Aid Loan Request Form |
| **Employment**                               |                                  |                                        |                                           |
| Federal Work-Study Program                   | Financial need, enrolled at least half-time | Limited to 20 hours per week or up to student’s need with all other programs consolidated | FAFSA                                      |
| On-campus employment other than Federal Work Study | Maintaining 2.0 GPA, enrolled at least half-time | Limited to 20 hours per week           | Through AC Placement Office               |
| **Scholarships**                             |                                  |                                        |                                           |
| AC Foundation Scholarships                  | Awarded on high school activities, high school or AC GPA, full-time employment | $150 to $300                            | Application in Financial Aid              |
| Departmental Scholarships                    | Inquire department chair of your major | Inquire department chair of your major | Inquire department chair of your major    |
Definitions and Explanations

UNITS OF CREDIT - SEMESTER HOURS
Academic credit at Amarillo College is granted on the basis of semester hours. In general, a semester hour of credit is given for passing work in one lecture period of 50 minutes each week, two to four laboratory hours each week, or four to 16 clinical hours each week for 16 weeks.

COURSE NUMBERS
All courses are designated with a prefix, which denotes the field of study, and a four-digit course number.

Course Numbering Guideline
• The first digit of the number indicates the classification of the course: 1 - freshman, 2 - sophomore, 0 - developmental.
• The second digit indicates the number of semester hours credit the course carries.
• The last two digits indicate the course sequence. Thus English 1301 would be the first English course in the sequence.
• Courses designated with an * and footnote in the course description section of the catalog comply with the Texas Common Course Numbering System (TCCNS). These courses are designed to transfer to public colleges and universities in Texas. Courses that are designed for a specific technical program follow the Workforce Education Course Manual content and numbering system.

SEMESTER LOAD
The minimum semester load for full-time status in a fall, spring or summer semester is 12 credit hours. Students who wish to enroll in more than 21 hours must have advisor approval.

A summer semester consists of a variety of variable length terms. The normal summer semester load is six to eight hours. Students who wish to enroll in more than nine hours must have the approval of the Vice President for Academic Affairs.

Academic Freedom for Students
Students shall be free to be guided by scholarly research, study the substance of a given discipline, examine pertinent data, question assumptions, take reasoned exception to information and views offered in the classroom, and reserve judgment about matters of opinion.

Academic Standing
Students must meet academic standards in work completed at Amarillo College each semester. The College places those students who fail to meet these standards on academic probation or academic suspension. Students who meet or exceed academic standards set by the College, will be considered in good standing. In determining academic standing, the College considers grades earned only at Amarillo College.
Academic Probation
A student whose semester grade-point average falls below a 2.0 and the cumulative GPA is less than 2.5 will be placed on academic probation. For purposes of determining academic probation, all course work taken during the summer terms (including May term) in a given year will be considered as one semester.

CONDITIONS
• A student on probation is required to participate in the probation program.
• A student receiving Veteran’s Administration benefits who fails to maintain a 2.0 cumulative grade point average after earning 31 credit hours, or is placed on academic suspension, will be reported to the VA as making unsatisfactory progress.

REMOVAL
• A student is removed from academic probation when a 2.0 grade-point average or better is earned on all work attempted at Amarillo College during the semester that the student is on probation.

Academic Suspension
A student on probation who fails to bring his or her semester grade-point average up to a minimum of 2.0 will be suspended through the next semester. For purposes of determining academic suspension, all course work taken during the summer terms in a given year will be considered as one semester.

CONDITIONS
Academic suspension is effective for at least one semester. The summer term may serve as a suspension semester.
• A Suspension Waiver Program is offered during the fall and spring semesters.
• A student, who is on suspension from Amarillo College or any other college, may attend an informational meeting and apply to enter the Suspension-Waiver program during his or her semester of suspension. If accepted into the program, the student is allowed to attend classes that semester as long as he/she meets the Suspension-Waiver program requirements.
• A student who is on suspension from Amarillo College, may choose to not attend classes during his/her one semester of suspension.

REMOVAL
• After the suspension semester, the student is eligible for readmission to Amarillo College the next semester on academic probation.

Academic Support Services
SERVICES FOR STUDENTS WITH DISABILITIES
disAbility Services coordinates student services including academic advising, testing accommodations, tutoring, classroom accommodations, registration assistance, and barrier-free access to campus facilities for Amarillo College students with disabilities. In addition to working closely with various state and local agencies, disAbility Services coordinates efforts with Amarillo College administration, faculty, and staff in providing services for students with disabilities.

Prospective and current students, parents, and others who are interested in such services or more information should contact the Coordinator of disAbility Services, Student Service Center, Room 119.

PEER TUTORING
Any student who needs assistance in academic courses can request a free peer tutor. Tutoring can help students understand course material and become independent learners.

Peer tutoring also has available a variety of free material to help students improve study habits.

STUDENT SUPPORT SERVICES
Student Support Services is a government-funded program offering support services to 250 qualifying Amarillo College students. To qualify, one must be a first-generation, low-income, and/or disabled student. These services include specialized advising, green-lighting, academic intervention, transfer assistance, professional tutoring, study skills seminars, transition and time management helps, and guidance toward financial aid help.

SUPPLEMENTAL INSTRUCTION
Supplemental Instruction (SI) is a student academic assistance program that increases academic performance and retention through its use of collaborative learning strategies. The SI program targets traditionally difficult academic courses, those that typically have 30 percent or higher rate of D or F final course grades or withdrawals, and provides regularly scheduled, out-of-class, peer-facilitated sessions that offer students an opportunity to discuss and process course information. Contact 371-5427 (LIB 305L), for more information.

Advising and Counseling Services
Advising and Counseling services are available for all students and prospective students. Professional counselors and academic advisors help individuals evaluate academic, personal, and career options. The Advising and Counseling Center is located on the first floor of the Student Service Center on the Washington Street Campus. Divisional Counselors are located in each division to assist with advising for specific majors.

GENERAL ADVISING SERVICES
• Educational planning and academic course advisement for prospective college students.
• Academic advising for those majoring in General Studies, and persons who are undecided about a major (pending).
• Comprehensive services for students planning transfer to universities or professional schools.
• College Success Techniques (SPCH 1171), a one-credit hour course which helps students manage college life, improve study skills, and learn success strategies.
Community Link is located at 2412 N. Grand. 381-8968. Se habla Español.

Attendance
Regular attendance is necessary for satisfactory achievement. Therefore, it is the responsibility of the student to attend class in accordance with the requirements of the course as established by the instructor. Attendance and/or participation requirements in courses delivered electronically (telecourses and on-line courses) will be unique to the individual course.

RELIGIOUS HOLY DAYS
Amarillo College shall excuse a student from attending classes or other required activities including examinations for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused for this observance may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

Amarillo College may not excuse absences for religious holy days which may interfere with patient care.

If a student and an instructor disagree about the nature of the absence being for the observance of a religious holy day, or if there is a similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the President of Amarillo College or his or her designee. The student and the instructor shall abide by the decision of the President or the designee.

Class Cancellations
INCLEMENT WEATHER
If Amarillo College campuses are closed or classes canceled due to inclement weather, an official announcement will be made through the Amarillo College website (www.actx.edu) as well as all local television and radio stations. The College’s main phone number, website and the news media will be updated as decisions in closings are made.
Morning closings and changes will be announced by 6 a.m. If possible, the decision to close or change evening classes will be made by 3 p.m. Announcements should air within 30 minutes of the release time. If no announcements are made, the College will open as normally scheduled.

Please listen closely to announcements as classes in one location may be canceled while classes at another location remain open.

Credits

**ALTERNATIVE METHODS OF EARNING CREDIT**

**Tech-Prep**
This is a program that allows students to earn college credit through the completion of technical courses in high school. Amarillo College participates in the Panhandle Tech-Prep Consortium. Through this consortium Amarillo College has created a number of cooperative programs with area high schools. After completion of a Tech-Prep program in high school, students may enroll at Amarillo College and petition for credit based on the completion of the Tech-Prep program. High school students are urged to review the requirements of the articulation agreement for their specific program. Students may obtain copies of their articulation agreements from their high school counselor or from the Tech-Prep coordinator at Amarillo College.

**College Credit by Examination**
College credit can be granted for successful completion of selected examinations from the testing programs described below. Students must be enrolled at Amarillo College in order to receive credit by examination. Course work will appear on the student’s transcript with a grade of “E” indicating “credit by examination.” Students are responsible for having their test results sent to the Registrar’s Office and filing the petition for credit. Registration materials for testing are available at Testing Services and in most secondary schools. More information about these exams can be found on the Amarillo College website, [www.actx.edu/catalog/testing](http://www.actx.edu/catalog/testing).

Contact the Amarillo College Testing Services in the Student Service Center, Room 101, for information on the following programs:

**College Level Examination Program (CLEP)**
Amarillo College grants semester-hour credit for certain CLEP examinations which measure achievement in specific courses.

**College Board Advanced Placement (AP)**
Program examinations are offered in participating secondary schools in May of each year. Information may be obtained by calling the local public school administration, or by writing Educational Testing Service, Princeton, NJ 08540. Students may obtain a complete list of Amarillo College courses for which AP credit may be granted. Contact Testing Services for more information. Credit may be granted for a score of three or above to qualified students.

**SAT Testing Program**
This program consists of the SAT I-Reasoning Test and the SAT II-Subject Tests. Students may qualify for English and Mathematics credit at Amarillo College according to scores on these exams.

**ACT Testing Program**
ACT examinations consist of four sub-tests in math, English, science, and social studies. Amarillo College awards credit for English and Math based on ACT scores.

**Department Examinations**
Several departments within the college prepare, administer, and score comprehensive examinations. A passing score on one of these exams will qualify a student for credit in the specific course covered by the examination. Students should contact the department chair for additional information.

**Credit for Experience/Professional Licensure**
Students who have completed one year of active duty in the Armed Forces of the United States and who have been discharged or released honorably may receive three semester hours of physical education credit. Students who wish to obtain this credit should submit an original copy of their DD 214 to the Registrar’s Office.

Credit will be awarded for learning achieved through experiences outside typical educational settings when it is consistent with the educational objectives of the student, the requirements of the curriculum, and the policy on granting credit for experience. Awarding of credit will be considered for the following experience:

- military training and experience;
- professional certificates, licenses, and credentials such as FAA licenses, medical field licenses, etc.;
- learning achieved through proprietary schools, apprenticeship or other in-house training programs;
- other experiences with appropriate documentation.

Students must be enrolled at the time they apply for credit. The credit, if awarded, must apply to the student’s declared major.

- Contact the department chair specific to the subject area to see if their request is feasible.
- Prepare application for credit by experience identifying course chosen for credit.
- Each application/portfolio must include a written justification by the student.
- Prepare portfolio documenting experience—should include, but not limited to the following:
  - previous education related to course;
  - previous work experience, military, etc., including dates, titles, job descriptions;
  - in-service training workshops, including dates, topics, certificates, or transcripts;
  - professional certificates, licenses;
  - letter from employers, volunteer agencies, regulatory agencies supporting experience;
  - return application to department.
A committee will review for appropriateness and approval.

- If the application is approved, the student will be notified to pay a $15 fee per course.
- If disapproved, the application will be returned.

**ADVANCED STANDING (WITHOUT CREDIT)**

Office Technology, Language, and Mathematics offer advance placement without credit to qualified students. Students may contact the department chairs for further information.

**EXTERNAL LEARNING EXPERIENCE**

An External Learning Experience (ELE) is a competency-based learning experience that enhances lecture and laboratory instruction, and is provided at work sites appropriate to a student's field of study. The ELE allows the student to have practical, hands-on training and to apply concepts and theories in a workplace setting. There are four types of External Learning Experiences: clinicals, internships, practica, and cooperative education.

Each program of study determines the type of External Learning Experience that best meets the needs of its students. To participate in an External Learning Experience, students should have completed six semester hours in their occupational major and must have approval from their program manager. The number of semester hour credits students earn depends on the type of External Learning Experience and the number of approved work hours. In addition to the work experience, Cooperative Education students must attend a lecture series totaling 16 hours. This lecture series earns students one semester credit hour.

External Learning Experience students find that their studies have greater relevance when on-the-job experience is combined with classroom instruction. This integration of work and study increases the student’s competence and motivation because it reinforces why learning is needed. Also, the student’s interaction with fellow workers and supervisors helps the student develop important human relations skills.

**Distance Education**

The Distance Education Program provides access to Amarillo College courses and support services for students separated by time and/or physical location from traditional classroom settings. Distance courses have the same features as on-campus courses in terms of academic quality, objectives, credit hours, content and transferability and require the same effort and commitment. Currently, students may take telecourses, online courses over the Internet, or interactive video courses. These courses offer flexibility to students who have time and distance constraints (www.actx.edu/~disted).

**TELECOURSES**

Students may take a variety of college-credit courses via telecommunications (television or radio)-"Telecourses." Telecourses require that students view programs on KACV-TV or listen to programs on KACV-FM 90. Students may record programs for viewing or listening at convenient times or for review.

Students may also rent a complete set of cassettes from a second-party provider. This rental fee is not a part of the regular tuition and fees.

Students are required to read, to prepare written assignments, to follow study-guide assignments, and to attend a few campus meetings, including an on-campus orientation. Campus visits and communication with support faculty are scheduled for mutually convenient times.

Telecourses can be taken with on-campus classes, and students may enroll in them through the normal registration processes. (For more information, visit www.kacv.tv/telecourse/.)

**ONLINE COURSES**

AC also offers online courses. Instead of attending regular classes on campus, students access weekly lessons and assignments on the Internet. Students must have access to an IBM compatible computer with a modem, an internet service provider, and a web browser (www.actx.edu/~disted).

**HYBRID COURSES**

A Hybrid course is a traditional face-to-face class that is supplemented with online components. The online components comprise a notable portion of the class. Internet use is required.

**INTERACTIVE VIDEO COURSES**

Interactive video instruction provides two-way, real-time communication between instructor and students who are geographically separated. Interactive video instruction requires the student to attend classes at a specific time and place, but often at a location much closer to where the student lives. AC currently has three interactive video classrooms.

**Evening and Weekend Classes**

Amarillo College offers classes during the evening and weekend hours for persons who wish to enroll in academic, cultural, or technical courses. Courses are provided in most departments of the College and are taught by regular faculty members and other qualified instructors.

**Final Examinations**

The schedule for final exams will be published each semester in the Class Schedule. Final examinations for courses offered on an alternative schedule will be administered according to information presented in each individual course syllabus.

**Grades and Reports**

Students’ semester grades in all courses are filed in the Registrar's Office, and these are the official record of the College. A grade once earned and recorded cannot be removed. If a student repeats a course one or more times, the highest grade is the one counted toward fulfillment of degree requirements.
A grade point, or quality point, is the numerical value given to letter grades. Note above that an “A” is represented by a “4.” This means that an “A” in a one-credit-hour course earns 4 grade, or quality points. An “A” in a three-credit-hour course earns 12 grade, or quality points, etc.

GRADE POINT AVERAGE (GPA)

Semester Grade Point Average – The semester GPA is calculated by dividing the number of grade points earned by the total number of credit hours attempted, including grades assigned for remedial/developmental course work and excluding all but the highest grade assigned where courses have been repeated. (Courses repeated at other schools will not apply to this policy.) This grade point average appears on official transcripts after each term enrolled.

Cumulative Grade Point Average – The overall GPA is calculated by dividing the total number of grade points earned by the total number of credit hours attempted, excluding grades assigned for remedial/developmental course work and all but the highest grade assigned where courses have been repeated. (Courses repeated at other schools will not apply to this policy.) This grade point average appears on official transcripts after each term enrolled.

Graduation Grade Point Average – The graduation GPA is calculated by dividing the total number of grade points earned by the total number of credit hours attempted, excluding remedial/developmental course grades and all but the highest grade assigned where courses have been repeated. (Courses repeated at other schools will not apply to this policy.) Any student with a graduation GPA below 2.00 may petition the Vice President for Academic Affairs to exclude grades in courses not required for their degree or certificate. If the student is granted permission to exclude grades he will not be considered for graduation with honors. The graduation GPA is used to determine eligibility for graduation and will not appear on the transcript.

For multiple enrollments, failing grade(s) will be omitted and last grade counts.

GRADE OF “I”

An “I” (Incomplete) may be given when a portion of course requirements, such as an exam or a report, has not been completed. The student and instructor must complete a Contract for Incomplete Grade form prior to the granting of a grade of “I.” If the course is not completed by the specified deadline, the “I” will be changed to an F. The student is entirely responsible for completing the work that will remove the “I.”

CHANGE OF GRADE

Any grade change must be made by the instructor of record, or in the absence of the instructor, by the department chair. Requests for grade changes made more than six months after the initial grade determination must also be approved by the division chair and Vice President for Academic Affairs. Grade changes will not be made without sufficient justification.

Guarantee for Job Competency

Amarillo College guarantees that recipients of an Associate of Applied Science degree or Certificate of Completion will possess technical job skills identified as exit competencies for his or her specific degree program and required for an entry-level position in the occupation for which the program was designed. If such a graduate is judged by his or her employer to be lacking in those skills, the graduate will be provided up to 12 tuition-free credit hours or additional skill training by Amarillo College under the conditions of the guarantee policy. Students should contact their academic advisor or the Advising and Counseling Center for additional information.

Honors Lists

A scholastic honors list will be published after the end of each (fall and spring) semester. Students must be enrolled in 12 or more hours of academic courses (nonremedial) and make a grade point average of 3.6 or above to qualify for the honors list. Any student not wanting his or her name published must submit a non-disclosure form to the Registrar’s Office prior to the twelfth class day.

PROGRAM

The Honors Program is a curriculum of four core courses geared for motivated, intellectually curious students who appreciate small classes. The courses include Public Speaking, U.S. Government, Survey of Art and Music, and Literature of the Western World. Additional Honors courses include Microbiology and Calculus. Financial Aid provides scholarships up to $150 to the best qualified applicants whose grades are 3.5 or better. Students also have the option of taking a single Honors course. For admission and advising information contact Judy Carter (371-5278 or carter-jh@actx.edu).

Police Department

Amarillo College is dedicated to ensuring our campuses are safe, healthy and drug-free places to visit, study and work. State-certified police officers are on duty to provide service to visitors, students, faculty and staff while they are on the College’s campuses.

To report criminal incidents, call 371-5163.

For traffic and parking regulations or additional information, consult the current Campus Safety, Traffic and Parking Regulations brochure.
**Student Responsibilities**

Students are responsible for knowing and understanding Amarillo College’s requirements relating to registration and academic standards. Students are encouraged to meet regularly with their academic advisors and to contact the Office of the Registrar with questions about academic procedures, policies or regulations.

**ACADEMIC GRIEVANCES**

A student who has a grievance concerning a course first should appeal to the instructor of the course. If the student is not satisfied with the decision from the instructor, the student may appeal the decision to the department chair and the division chair, in that order. If satisfactory resolution of the problem is still not achieved, the student may appeal to the Associate Vice President for Academic Affairs, then finally to the Vice President for Academic Affairs.

**CHANGES IN STUDENT INFORMATION**

Students are responsible for keeping the College informed of changes in their current postal address, e-mail address, name, or other pertinent information. All changes should be presented in writing to the Assistance Center, located in the Student Service Center on the Washington Street Campus or other campus Service Counters. A change of address may affect the student’s residency status, thus affecting a student’s tuition rate. Any communication mailed or e-mailed to the address on record is considered to have been properly delivered to the student.

**Amarillo College Library**

[http://library.actx.edu](http://library.actx.edu)

Amarillo College students may use all the facilities in the library’s three branches and the Moore County Campus. Its central facility is Lynn Library on the Washington Street Campus, which houses the main printed books and microform collections, and provides most of the information required for college courses, as well as study areas and the Student Computer Center. The West Campus Library, located in the Amarillo Public Library Northwest Branch, holds materials primarily in allied health and nursing. East Campus Library contains materials for industrial and transportation technologies. The Moore County Campus provides a small reference and general collection.

The library provides access to over 24,000 electronic books and over 5,000 full-text periodicals in many individual disciplines across the college’s network and off-campus via proxy server. Numerous computer workstations are also available in the library’s facilities for internet access.

Harrington Library Consortium member libraries throughout the Texas Panhandle extend borrowing privileges to Amarillo College students. The consortium includes all branches of the Amarillo Public Library.

**Testing Services**

Testing Services, located in the Student Service Center, Room 101, offers a variety of services to students, prospective students, and instructors including standardized testing, make-up testing, instructional support such as certification and competency examination, and proctoring services for students enrolled in distance learning programs.

Standardized tests are administered on scheduled dates and require advance registration and payment. The GED examination is administered each week. See the Testing Services website at [www.actx.edu/catalog/testing](http://www.actx.edu/catalog/testing) for details.

**Transcripts**

Transcripts of credits must be requested in writing by the student. All admission requirements and financial obligations to the College must be met in full before transcripts will be issued.

**Transfer**

Transferability of course work is usually dependent on the receiving institution’s course content requirements. No university is required to accept in excess of 66 semester credit hours in transfer from a community college. A university may accept more than 66 semester credit hours by choice, but cannot be compelled to do so. All students who may wish to transfer course work from Amarillo College to any college or university should contact the Admissions Office at the school to assure transferability.

Students may also compare the common course numbers with the common course information from the school where they wish to transfer. Course designated with an * and a footnote in the course description section of the catalog comply with the Texas Common Course Numbering System (TCCNS). These courses are designed to transfer to public colleges and universities in Texas. Any student transferring from a community college to a university shall have the same choice of catalog designating degree requirements as the student would have had if the dates of attendance at the university had been the same as the dates of attendance at the community college. If students encounter transfer problems, they should contact the AC Advising and Counseling Center. Students transferring to public colleges and universities in Texas which grant baccalaureate degrees should contact the receiving institution regarding additional fees that may be charged if they enroll in excess of 45 credit hours above the required number for their degree.

**TRANSFER DISPUTE RESOLUTION**

The Texas Education Code Section 61.078 provides a means to aid students in resolving disputes regarding the transfer of course credits. To qualify as a dispute the course(s) in questions must be listed in the Community College General Academic Course Guide Manual and be offered at the receiving institution. The sending institution, or the student working through the senior institution, must initiate the dispute. From
the date a student is notified of the denial of credit, the law allows a maximum of 45 calendar days for the resolution of the dispute by the sending and receiving institutions.

In order to challenge the denial of credit, a “Transfer Dispute Resolution” form, available in the Registrar’s Office, must be completed within 15 days after the student has been notified of the denial of credit. This form is sent to the receiving institution.

The receiving institution must then inform the student, the sending institution and the State Commissioner of Higher Education of the resolution. If need be, the Commissioner, or designee, may be called upon to resolve the dispute.

Workforce Development

Business & Industry Center
The Business & Industry Center, located at 1314 S. Polk, houses a 215-seat auditorium, a meeting/exhibit hall and classrooms providing state-of-the-art facilities for seminars, short courses, and computer training. This 31,215 square-foot facility is dedicated to workforce training for business and industry.

Continuing Education
Amarillo College offers numerous unique educational options in the form of continuing education classes and workforce development opportunities.

Amarillo College’s workforce education and training programs are designed to meet the special needs of business and industry. Organizations may choose from hundreds of different training options, or the College can tailor instruction to meet specific requirements.

Instructional content and training times are flexible, and businesses may arrange for courses, seminars or workshops in conjunction with their own training programs. Employers may elect to receive training at the worksite, at the Business & Industry Center, at any of the College’s other campuses, or at another suitable location.

LEISURE STUDIES
Leisure Studies enhance the quality of life through cultural and enrichment studies as well as avocational pursuits of almost unlimited variety. These short courses, seminars and workshops are conducted at any Amarillo College campus or at off-campus sites. Most Leisure Studies courses are offered once each semester; however, a class may be started at any time. Individuals or groups are invited to make requests, comments or suggestions by contacting the Coordinator of Leisure Studies.

OCCUPATIONAL EDUCATION
Occupational Education presents work-related courses designed to improve occupational competence or advance employment. These courses also provide the basic skills and knowledge essential to entry-level employment in several occupational fields. Occupational Education courses are usually offered during the evening hours, but may be held at any time of the day. Courses are taught at Amarillo College or other suitable locations. Instructors are selected on the basis of formal education and relevant work experience. They are knowledgeable in their fields and able to emphasize both the theoretical and practical aspects of their subject. For more information, contact the Coordinator of Occupational Education.
Center for Continuing Healthcare Education

The Center for Continuing Healthcare Education conducts a wide range of workshops, seminars, conferences and courses for healthcare professionals using locally, nationally and internationally recognized speakers. These are developed, customized and selected according to periodic healthcare education needs assessments of healthcare professionals. The Center is conveniently located on the West Campus, adjacent to the Harrington Regional Medical Center.

The Center for Continuing Healthcare Education provides:

- courses leading to entry-level positions in basic healthcare delivery.
- seminars and workshops which broaden healthcare professionals’ understanding of cultural sensitivity, ethics and law.
- programs, courses and seminars specifically designed to enhance intellectual, occupational and technical skills in caring for people from womb to tomb.
- channels for the improvement of healthcare outcomes in the community.

PROGRAM ACCREDITATION

Continuing education units are offered for a variety of specialties in healthcare. Contact hours offered for nurses meet ED I (Type I) criteria for registered nurse mandatory continuing education as established by the Board of Nurse Examiners for the State of Texas. The Amarillo College Center for Continuing Healthcare Education is approved as a provider of continuing education in nursing by the Texas Nurses Association which is accredited as an approver of continuing education in nursing by the American Nurses Credentialing Center’s Commission on Accreditation. This approval meets ED I (Type I) criteria for mandatory continuing education requirements toward relicensure as established by the Board of Nurse Examiners for the State of Texas. These offerings are also acceptable for Licensed Vocational Nurses (LVN) mandatory continuing education. The Center also has the ability to provide and co-provide continuing education credits for social workers, licensed professional counselors, dietitians, respiratory therapists, physical therapists, physicians, and physician assistants.

Criminal Justice Programs

AC’s Criminal Justice Programs conduct training for law enforcement and corrections personnel in the 26 counties of the Texas Panhandle. Academic or continuing education credit is awarded depending on the particular program.

A mainstay of the Criminal Justice Programs is the Panhandle Regional Law Enforcement Academy (PRLEA) which is located on the West Campus. It has been training people for careers as sheriff’s deputies and city police officers since the early 1970s. Upon completion of the Law Enforcement Academy, students receive 24 semester credit hours supplying the core requirements for a Certificate of Completion or an Associate in Applied Science degree in Criminal Justice Law Enforcement. Criminal Justice Programs also offer an Associate in Science degree in Criminal Justice. This degree is designed for students planning to complete a bachelor degree in Criminal Justice at a four-year university or college. For students in the correctional field, a Certificate of Completion or an Associate in Applied Science degree in Criminal Justice Corrections is offered.

In addition to law enforcement and correctional personnel, the Criminal Justice Programs provide required in-service and specialized training opportunities as well as conferences using presenters who are recognized on a local, national, and international level. PRLEA is a licensed training provider through the Texas Commission on Law Enforcement Officer’s Standards and Education (TCLEOSE) in Austin.

Continuing Education Units

Amarillo College awards Continuing Education Units (CEUs) in recognition of satisfactory completion of Continuing Education courses. One CEU is defined as 10 hours of participation in an organized continuing education experience under responsible sponsorship, capable direction and qualified instruction. A certificate indicating satisfactory completion and the number of CEUs awarded are issued at the end of the course. Permanent records are maintained by the Registrar’s Office.

Continuing Education Refund Policy

Refunds - Unless otherwise stated in brochures, flyers or other promotional materials, the AC Continuing Education Refund Policy is as follows:

- Students must initiate all refund requests and transfers from one class to another.
- Refunds are processed within 45 days.
- If a student transfers to a different class, any additional tuition due must be paid at the time the transfer is processed.
- If a class is canceled, the student automatically receives a 100 percent refund.

CLASSES WITH FEWER THAN THREE CLASS MEETINGS:

Until the close of business the last working day prior to the beginning date of the class:

- 100 percent refunds will be given.
- Class transfers are allowed.
- No refunds will be given on or after the first class day.

CLASSES WITH THREE OR MORE CLASS MEETINGS:

Until the close of business the last working day prior to the date of the third class meeting:

- 100 percent refunds will be given.
- Class transfers are allowed and 100 percent of tuition already paid will be applied to the new course(s).
- No refunds will be given on or after the third class day.
Notices to Students

Student Rights and Responsibilities Publication
The Student Rights and Responsibilities publication is an official bulletin of Amarillo College that contains the Student Code of Conduct, Disciplinary Procedures, policies on confidentiality of student records, student grievance procedure, campus procedures, Substance Abuse Prevention Program and information on the Student Assistance Program. It provides a concise statement of policies, regulations and procedures.

The College reserves the right to make changes at any time to reflect current board policies, administrative regulations and procedures, and amendments of state law. Students are urged to study the contents of this publication carefully, for they are responsible for observing these regulations. Failure to comply with these regulations may result in disciplinary action. Copies are available in the Dean of Student and Academic Development Office.

Graduation Rates
The most recent graduation rate information for Amarillo College may be obtained from the College website at http://www.actx.edu/grs.htm. A paper copy of this information is available from the Dean of Student and Academic Development Office.

Reportable Criminal Offense Statistics

Sex Offender Information
Information on registered sex offenders in the State of Texas may be obtained at http://records.txdps.state.tx.us/soSearch/default.cfm.

Substance Abuse Prevention Program
Amarillo College is committed to providing an environment free from illegal drugs and alcohol. The College has established a program to prevent the illicit use of drugs and the abuse of alcohol by both students and employees, as well as to inform all persons associated with the College concerning the health risks and potential legal penalties associated with substance abuse. Complete copies of the College’s policy are published in Amarillo College’s Student Rights and Responsibilities booklet which is available from the Dean of Student and Academic Development Office.

Equal Opportunity Policy
Amarillo College is an equal opportunity community college. It is the policy of Amarillo College not to discriminate on the basis of sex, disability, race, color, age, religion, or national origin in its educational and vocational programs, activities or employment as required by Title IX, as amended, Section 504, Title VI, and Age Discrimination Act of 1978. For information about your rights or grievance procedures, contact the Director of Human Resources Lynn Thornton (371-5040, SSC 280) who has been designated the compliance coordinator for Title IX of the Educational Amendments of 1972, as amended, and Title II, of the Americans with Disabilities Act and the related regulations.
Discrimination
Any student who believes he or she has been discriminated against on the basis of race, color, national origin, sex, age or disability by the institution or its personnel may informally discuss the complaint with the Dean of Student and Academic Development or Dean's Designee with the objective of reaching a reasonable solution. The Dean or Dean's Designee shall advise the student of his or her options in the situation and notify the Affirmative Action Officer of the College.

If the aggrieved student believes the complaint has not been resolved, he or she may submit a written complaint stating name, nature and date of the alleged violation, names of persons responsible (where known), names of any witnesses, and requested action within 30 working days of the date of the informal discussion to the Dean or Dean's Designee. As dictated by circumstance, the Dean or Dean's Designee shall ensure that the aggrieved student's rights to due process procedures are honored. If a hearing is held, the Affirmative Action Officer and the Dean or Dean's Designee will conduct the hearing.

The Affirmative Action Officer and the Dean or Dean's Designee will consult with College legal counsel and render a decision, in writing, on the complaint within 10 working days. If this decision is not to the student's satisfaction, he or she may appeal the decision to the Dean of Student and Academic Development within 10 working days of the receipt of the written decision according to procedures outlined in the Board Policy Manual.

Confidentiality and Access of Students’ Records
The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

- The right to inspect and review the student’s education records within 45 days of the day the College receives a request for access. Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

- The right to request the amendment of the student’s education records that student believes is inaccurate. Students may ask the College to amend a record that they believe is inaccurate. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate. If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

- The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent. One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Regents; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the College discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

- The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA are:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-4605

Directory information within a student’s record which may be released upon request at the discretion of the College includes:

- Student’s name
- Participation in officially recognized activities
- Address
- Telephone listing
- Electronic mail address
- Photograph
- Degrees, honors, and awards received
- Date and place of birth
- Major field of study
- Dates of attendance
- The most recent educational agency or institution attended.

If a student does not wish for this public information to be released, he/she is responsible for notifying the Registrar's Office, located in the Student Service Center, in writing by the 12th class day each regular semester and by the 4th class day of the summer term.
Immunization Information

Amarillo College recommends that students entering this institution be fully vaccinated prior to enrollment and preventative vaccinations be taken when required. The consequences of not being fully immunized for diphtheria, rebella, mumps, tetanus and poliomyelitis are severe. An outbreak of any of these diseases can have a devastating impact on the campus community. Immunization is an integral part of preventative health care.

All students majoring in the health-care fields must provide documented proof that they have been fully immunized prior to program admission. Students in Allied Health and Nursing programs should consult with their program chairs regarding mandatory immunization requirements.

For additional immunization information, you are encouraged to contact your family physician, the county health department, or the Immunization Division of the Texas Department of Health.

Student Health Insurance

Amarillo College does not provide health insurance for students. However, information from various insurance carriers is kept on file in the Dean of Student Academic Development Office for students to review for individual purchase.

Important Information about Bacterial Meningitis

The 77th Texas Legislature requires that all public institutions of higher education notify all new students about bacterial meningitis and to obtain confirmation from the students that they received the information. This information is provided to all new college students in the state of Texas. Bacterial Meningitis is a serious, potentially deadly disease that can progress extremely fast—so take utmost caution. It is an inflammation of the membranes that surround the brain and spinal cord. The bacteria that causes meningitis can also infect the blood. This disease strikes about 3,000 Americans each year, including 100-125 on college campuses, leading to 5-15 deaths among college students every year. There is a treatment, but those who survive may develop severe health problems or disabilities.

WHAT ARE THE SYMPTOMS?
- High fever
- Severe headache
- Rash or purple patches on skin
- Vomiting
- Light sensitivity
- Stiff neck
- Confusion and sleepiness
- Nausea
- Lethargy
- Seizures

There may be a rash of tiny, red-purple spots caused by bleeding under the skin. These can occur anywhere on the body. The more symptoms, the higher the risk, so when these symptoms appear seek immediate medical attention.

HOW IS BACTERIAL MENINGITIS DIAGNOSED?
- Diagnosis is made by a medical provider and is usually based on a combination of clinical symptoms and laboratory results from spinal fluid and blood tests.
- Early diagnosis and treatment can greatly improve the likelihood of recovery.

HOW IS THE DISEASE TRANSMITTED?
- The disease is transmitted when people exchange saliva (such as by kissing, or by sharing drinking containers, utensils, cigarettes, toothbrushes, etc.) or come in contact with respiratory or throat secretions.

HOW DO YOU INCREASE YOUR RISK OF GETTING BACTERIAL MENINGITIS?
- Exposure to saliva by sharing cigarettes, water bottles, eating utensils, food, kissing, etc.
- Living in close conditions (such as sharing a room/suite in a dorm or group home).

WHAT ARE THE POSSIBLE CONSEQUENCES OF THE DISEASE?
- Death (in 8 to 24 hours from perfectly well to dead)
- Permanent brain damage
- Kidney failure
- Learning disability
- Hearing loss, blindness
- Limb damage (fingers, toes, arms, legs) that requires amputation
- Gangrene
- Coma
- Convulsions

CAN THE DISEASE BE TREATED?
- Antibiotic treatment, if received early, can save lives and chances of recovery are increased. However, permanent disability or death can still occur.
- Vaccinations are available and should be considered for:
  - Those living in close quarters
  - College students 25 years old or younger
- Vaccinations are effective against four of the five most common bacterial types that cause 70 percent of the disease in the U.S. (but does not protect against all types of meningitis).
- Vaccinations take 7-10 days to become effective, with protection lasting three to five years.
- The cost of vaccine varies, so check with your health care provider.
- Vaccination is very safe—most common side effects are redness and minor pain at injection site for up to two days.
- Vaccination is available from local health care providers.
HOW CAN I FIND OUT MORE INFORMATION?
• Contact your own health care provider.
• Contact your local or regional Texas Department of Health office at 655-7151.
• Contact web sites: www.cdc.gov/ncidod/dbmd/diseaseinfo; www.acha.org.

$1,000 Tuition Rebates
The Texas Education Code provides for tuition rebates of up to $1,000 to undergraduate students who complete their baccalaureate degree with a minimum of “excess” courses. You may qualify for this rebate if:
• you enrolled for the first time in the Fall of 1997 or later,
• you request your rebate for your first baccalaureate degree received from a Texas public university,
• you were a resident of Texas while attempting all of your course work at Texas public institutions,
• you attempted no more than three semester credit hours in excess of the minimum required for your degree.

This rebate will be given by the institution granting the baccalaureate degree, not by Amarillo College. Some credit hours earned exclusively by exam may be excluded.

For more information go to: http://collegefortexans.com

Organizations, Activities and Housing

More than 30 clubs and organizations bring students personal development and enjoyment outside the classroom. The Student Government Association sponsors the Distinguished Lecture Series, live concerts, seasonal parties and other campus-wide activities. Students can also take part in intramural sports, use the College’s gymnasiums and fitness center, enjoy student lounges and take advantage of the opportunities to develop musical and acting talents through Fine Arts.

Student Government Association
The Student Government Association (SGA) is a group of AC students who are elected by fellow students to represent the student body in all matters to the Board of Regents, the administration and the faculty, and to develop student programming to enhance the learning atmosphere. Through involvement in SGA, students have the opportunity to learn and develop in a creative, intellectual, cultural, and social setting. The SGA makes recommendations regarding student interests and policies through the Director of Student Activities and the Dean of Student and Academic Development.

Student Activities and Development
Student activities and development programs help students develop self-confidence and personal skills. These programs complement academic programs and contribute to the intellectual achievement of each student; moreover, they promote a good learning atmosphere. Following is a list of examples of voluntary activities:
• Student leadership conferences,
• Student clubs and organizations,
• Musical and theatrical productions,
• Instrumental and vocal music programs,
• Co-curricular workshops, conferences, and lectures,
• Student publications and radio,
• Blue Blazers (Honorary Student Hosts),
• Intramural athletics,
• Phi Theta Kappa Honor Society, and
• SGA-sponsored activities.
Student Media

THE RANGER
The office of student publications produces a weekly newspaper, The Ranger, as a forum for student opinion and a source of information to the college community.

AC CURRENT
AC Current, a student magazine, is published each semester.

KACV-FM 90
The College's nationally award-winning radio station, KACV-FM 90, is operated by broadcast students. The 100,000 watt station broadcasts a radius of 75 miles.

WEB MEDIA

Student Housing
STUDENT APARTMENTS
The Student Apartments are located at the East Campus just east of the Amarillo International Airport. No college or public transportation is available between campuses.

DEPOSIT
$135 deposit per student
Due to changing economic conditions, all rental rates are subject to change without notice. For current rates please contact the Student Apartments Staff at 335-4224.

The East Campus Student Apartments offer the following:
- Private bedroom, furnished, no cooking facilities
- Private bedroom, furnished, cooking facilities
Students must supply their own linens and cooking utensils.

Rent is payable in advance each semester, unless a student chooses an installment payment plan. Rent does not include holidays and scheduled breaks between terms. Student Apartments are closed during these times and they must be vacated on the last class day prior to such breaks.

Students who need special accommodations during breaks should contact the Student Apartments Staff. Students will be assessed a fee for remaining in the Student Apartments over break.

SPECIAL NEEDS
Special housing for students with disabilities is also available. Please see the Student Apartments Staff for more information.

RULES
The Student Apartment Handbook contains specific regulations; failure to comply could result in permanent dismissal from campus housing. Apartments are inspected regularly.

RESERVATIONS AND ASSIGNMENTS
Because facilities are limited, new students should complete a housing application as early as possible before the beginning of the semester in which they plan to enroll.

Applications will not be processed without the required deposit.

Student Apartment deposits may be withheld to cover the cost of repairs, replacement of lost items, unpaid rent, extra cleaning, damages, failure to follow proper check-out procedures, etc.

Returning students have priority in Student Apartment assignments. The East Campus Student Apartments will contact each applicant to confirm reservations. When capacity is reached, additional applicants will be notified in writing of unavailability of space.

Students may request a specific roommate and/or unit; however, Amarillo College reserves the right to assign students to specific units. Students may obtain permission to move from assigned facilities from the Assistant Property Manager of the Student Apartments. A fee will be assessed.

STUDENT MAIL
Students living in the Student Apartments receive their mail at the Recreation Hall North Building. Mail should be addressed to: East Campus, 1900 F Ave., Amarillo TX 79111.
Amarillo College offers three associate degrees and various certificates of completion.

ASSOCIATE IN ARTS OR ASSOCIATE IN SCIENCE DEGREES
These degrees are awarded upon the completion of a curriculum which has been designed to parallel the first two years of a four-year college or university program. Thus, these degrees enable the student to transfer toward a Bachelor of Arts or Bachelor of Science degree.

ASSOCIATE OF ARTS IN TEACHING
This degree is awarded upon the completion of a curriculum which has been designed based on the guidelines established by the Texas Higher Education Coordinating Board and parallels the first two years of a Texas four-year college or university program. These degrees enable the student to transfer toward a Bachelor of Arts or Bachelor of Science degree designed to prepare a person for teacher certification in the respective areas of emphasis. This degree also will satisfy the requirement of the No Child Left Behind guidelines for teacher’s aides in public schools.

ASSOCIATE IN APPLIED SCIENCE
This degree is awarded upon the completion of one of the technical or health occupations curricula. These curricula are designed to prepare the student to enter a career directly upon completion of the program.

CERTIFICATE OF COMPLETION
A Certificate of Completion in designated technical and health occupations areas will be conferred on students who complete the prescribed curriculum.

DEPARTMENTAL CERTIFICATE
A Departmental Certificate will be awarded to students who satisfactorily complete prescribed courses within a department. These certificates contain fewer than 15 semester hours and are awarded by the department.

COMPLETION TIME
Generally, students completing 15 semester credit hours each semester will be able to complete a certificate of completion within one academic year and an associate degree in two academic years.

General Degree Requirements
- Completion of admission requirements.
- Satisfactory completion of the curriculum as prescribed for the major and degree sought including:
  - A minimum of 62 semester hours, (courses with numbers which begin with zero can not be included in total hours)
  - The general education requirements as specified,
  - Satisfactory completion of the competencies set forth in the syllabus for each course specified for the particular degree or certificate will constitute successful completion of program competencies.
- A minimum cumulative grade point average of 2.0. Grades in courses not applying to the degree may be waived by petition if approved by the Vice President for Academic Affairs and submitted to the Registrar. The waiver of grades as indicated above will not entitle a student to graduation with honors.
- Completion of at least 18 semester credit hours required at Amarillo College.
- Any student who is lacking 12 semester hours or less to meet graduation requirements at Amarillo College, may complete the required course work at another accredited college. Students must complete the course work and file an application for graduation within 12 months of their last enrollment at Amarillo College. To graduate under this policy, students must meet all program requirements and have a minimum of 42 semester hours of Amarillo College course work.
• Graduation With Honors – Associate degree students are eligible to graduate with honors or highest honors by completing a minimum of 45 hours at Amarillo College. Graduation with Honors requires a graduation G.P.A. of 3.6, graduation with Highest Honors requires a graduation G.P.A. of 3.8. Course work from other institutions will not be considered in calculating graduation G.P.A.
• Discharge of all financial obligations to the College prior to graduation.
• Must satisfy all requirements of the Texas Academic Skills Program (TASP).

Multiple Associate Degrees
Students who wish to pursue an additional associate degree should consult with their academic advisor.
• A student who has received an Associate in Arts (AA) degree may earn an Associate in Science (AS) degree in a different discipline, or any Associate in Applied Science (AAS) degree, but not another AA.
• A student who has received an AS degree may earn an AA in a different discipline, or any AAS degree, but not another AS degree.
• A student who has received an AA or AS degree in a specific discipline may not concurrently or subsequently be awarded an associate degree in General Studies or Liberal Arts.
• A student may choose to officially relinquish an AA or AS degree in order to apply previously earned hours to a different associate degree.
• In those disciplines where both an AA and AS are available, a student must choose one and may not receive both an AA and an AS degree in the same discipline.
• A student may earn only the degree designated for a given curriculum.
• A student who has received an AAS degree may earn an additional AA or AS or another AAS in a different major area.
• A double major will not be permitted within an AAS degree but multiple options may be completed within a specific discipline.
• The multiple degree policy applies whether the student is pursuing two degrees concurrently or sequentially.

Declaration of Major
Students who wish to pursue an associate degree or certificates of completion must declare a major and should consult with their academic advisor. Under the guidelines listed below, a student may pursue a degree or certificate in a major field of study.
• Major refers to a program of study concentrating in a discipline and related disciplines. Within some majors there may be options or areas of specialization. In the following pages “majors” are presented as curriculum plans which outline the requirements for a degree or certificate in the respective “major”. For example there is a “curriculum plan” for each “major” such as Aviation Maintenance Technology. Each curriculum plan sets out the requirements for a major and the respective degree.
• Students are encouraged to declare a major as soon as a decision is made regarding their preferred field of study. This declaration will aid in proper advising and encourage student success.
• A student who changes majors will be required to graduate under the requirements in effect at the time of the change.
• A student who has been continuously enrolled in a specific degree or certificate major may choose to graduate under the requirements for that same major in a more recent catalog by changing their catalog year. Enrollment in at least one semester or summer session during the selected catalog year must be documented.
• A student may not declare a major that has been deleted from our curriculum without permission of the academic dean. Prior enrollment while major was active must be documented.
• A double major will not be permitted in Certificates of Completion and AAS degrees. Students who complete all requirements will be awarded additional Certificates of Completion or AAS degrees.
• A double major will not be permitted for either an AA or AS degree if the degree has one or more options. Multiple options may be completed.
• Declaration of Major at Amarillo College
  • A student must be enrolled during or after the academic year that major is in effect.
  • A student cannot declare a major that is not active at the time of enrollment.

Graduation Under a Particular Catalog
Catalog graduation requirements are based upon the year and term of entry to Amarillo College. These catalog requirements will remain in effect for up to five years as long as the student registers for at least one semester or term each school year (i.e. 12 month period beginning with the fall semester and ending with the second summer session). If the student does not register at the college for any one of the four terms during the school year, the student’s new graduation requirements will be those in effect for the year and term the student re-enters the college. A student that changes majors will be required to graduate under requirements in effect at the time of the change. Continuously enrolled students who have not graduated within five years must meet the graduation requirements in effect at the time of their next enrollment.

Application for Graduation
Graduation is not an automatic process. Students must formally apply for graduation during the term in which they intend to graduate. Students should begin the process by consulting with an academic advisor to ensure that all degree requirements have been met, and then visit the Registrar’s Office to file the Graduation Application. Applications must be filed with the Registrar’s Office by the withdrawal deadline of the term in which the student plans to graduate. Degrees are posted to student transcripts at the end of each term.

Commencement
Amarillo College holds one graduation ceremony per year, at the end of the spring semester. This ceremony recognizes graduates from the fall semester of that year and also the candidates for graduation from the spring semester and upcoming summer semester. All students who complete a Graduation Application are invited to participate in the Commencement ceremony and will be sent a detailed letter containing related information.
Curriculum Plans

This section of the catalog presents curricula which lead to Certificates of Completion, Associate in Applied Science (AAS), Associate in Arts (AA), and Associate in Science (AS) degrees.

Each student who declares an intended major will be given a degree plan and advised by the faculty advisor based on the university to which he/she intends to transfer.

The certificate and AAS curricula requirements are based on the professional judgment of the faculty and advisory committee for each program. The objective of these curricula is to prepare students for entry level positions in the specific occupation. Course substitutions may be made upon the recommendation of the faculty when it is in the best interest of the student and consistent with the integrity of the program.

The curricula which lead to an AA or AS degree have been designed to parallel the freshman and sophomore requirements at a typical Texas university in the respective major. The General Education component in each curriculum plan is designed to meet the state core curriculum requirement. Other course requirements are based on the intended major and to best prepare a student for a specific university. Students whose needs are not met by the curricula for specific areas may complete an AS degree under the General Studies curriculum.

Curricula which are based on the Coordinating Board’s Fields of Study do not require completion of the 42 credit hour core curriculum. Those curricula are:

- **Business** - BUSI.AS
- **Criminal Justice** - CRIJ.AS
- **Education** - GENS.AS.ED
- **Engineering** - ENGR.AS.GEN
- **Engineering Computer Science** - ENGR.AS.COMPSC
- **Human Sciences (Child Development/Early Childhood)** - HUSC.AS.TECA
- **Music** - MUSI.AS

General Education

General education, as distinguished from professional or vocational education, provides a broad-based educational experience. General education courses promote those skills, understandings, attitudes, and values which will equip students for effective, responsible, productive living.

The General Education program is structured so that all degrees require a core of courses with each of the following areas represented: Fine Arts/Humanities, Social/Behavioral Sciences, Natural Sciences/Mathematics. The courses required for the AA and AS degrees constitute the core curriculum as required by the State of Texas.

<table>
<thead>
<tr>
<th>GENERAL EDUCATION REQUIREMENTS</th>
<th>AA and AS Degrees</th>
<th>AAS Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 1301: Freshman Comp. I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1302: Freshman Comp. II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Speech Communication*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Social/Behavioral Sciences</strong></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HIST 1301/1302: History of the United States I/II</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GOVT 2305: Govt of the U.S.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GOVT 2306: Govt of Texas and the U.S.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Elective*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Natural Science/Mathematics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics*</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science*</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td><strong>Humanities/Fine Arts</strong></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Humanities*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Visual and Performing Arts*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Lifetime Fitness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any PHED course numbered 1101-1122</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>42</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

*These requirements constitute the core curriculum as required by the State of Texas.

*As specified in individual curricula or selected from the following list.

The General Education requirements for the AA and AS degrees as displayed in the preceding chart make up the “Core Curriculum” as required by the State of Texas. Amarillo College’s 42 credit hour core will transfer to any Texas state college or university and satisfy 42 credit hours of that institution’s core curriculum requirement. Likewise, course credits totaling less than 42 credit hours will transfer and count towards the core curriculum requirements at the receiving institution in the appropriate categories.
GENERAL EDUCATION COURSE LIST*

*Courses appearing in two categories will satisfy the requirement for only one.

Communication
ENGL 1301 ....................... Freshman Composition I
ENGL 1302 ....................... Freshman Composition II
SPCH 1315 ......................... Public Speaking
SPCH 1318 ......................... Interpersonal Communication
SPCH 1321 ......................... Business and Professional Speaking

Mathematics
MATH 1314 ......................... College Algebra
MATH 1316 ......................... Trigonometry
MATH 1324 ......................... Mathematics for Business Decisions I
MATH 1325 ......................... Mathematics for Business Decisions II
MATH 1342 ......................... Statistics
MATH 1348 ......................... Analytic Geometry
MATH 2412 ......................... Pre-calculus
MATH 2413 ......................... Calculus I
MATH 2414 ......................... Calculus II
MATH (or any MATH course for which the above math courses are a prerequisite)

Natural Sciences
BIOL 2306 ....................... Environmental Science
BIOL 2106 ....................... Environmental Science Lab
BIOL 1308 ....................... Life Science I
BIOL 1108 ....................... Life Science Lab I
BIOL 1309 ....................... Life Science II
BIOL 1109 ....................... Life Science Lab II
BIOL 1411 ......................... Botany
BIOL 1413 ......................... Zoology
BIOL 1406 ......................... Biology I
BIOL 1407 ......................... Biology II
BIOL 2421 ......................... Microbiology
BIOL 2401 ......................... Human Anatomy and Physiology I
BIOL 2402 ......................... Human Anatomy and Physiology II
BIOL 2404 ......................... Human Physiology
CHEM 1305 ......................... Introductory Chemistry I
CHEM 1105 ......................... Introductory Chemistry I Lab
CHEM 1406 General Organic and Biological Chemistry CHEM 1405 Essentials of Chemistry I
CHEM 1419 ......................... Introductory Organic Chemistry
CHEM 1311 ......................... Principles of Chemistry I
CHEM 1111 ......................... Principles of Chemistry I Lab
CHEM 1312 ......................... Principles of Chemistry II
CHEM 1112 ......................... Principles of Chemistry II Lab
CHEM 2323 ......................... Organic Chemistry I
CHEM 2223 ......................... Organic Chemistry I Lab
CHEM 2325 ......................... Organic Chemistry II
CHEM 2225 ......................... Organic Chemistry II Lab
GEOL 1303 ......................... Physical Geology
GEOL 1103 ......................... Physical Geology Lab
GEOL 1304 ......................... Historical Geology
GEOL 1104 ......................... Historical Geology Lab
PHYS 1301 ......................... College Physics I
PHYS 1101 ......................... College Physics I Lab
PHYS 1302 ......................... College Physics II
PHYS 1102 ......................... College Physics II Lab
PHYS 1311 ......................... Descriptive Astronomy I
PHYS 1312 ......................... Descriptive Astronomy I Lab
PHYS 1112 ......................... Descriptive Astronomy II
PHYS 2425 ......................... Principles of Physics I
PHYS 2426 ......................... Principles of Physics II
PHYS 1305 ......................... Introductory Physics I
PHYS 1105 ......................... Introductory Physics I Lab
PHYS 1315 ......................... Concepts of Physical Science I
PHYS 1317 ......................... Concepts of Physical Science II

The following four courses may satisfy core curriculum requirements for elementary education majors and can be used in lieu of eight semester hours of other Natural Sciences:
Biol 2374 ......................... Integrated Biology I
CHEM 1375 ......................... Integrated Chemistry I
PHYS 1375 ......................... Integrated Physics I
PHYS 2373 ......................... Integrated Earth Science

HUMANITIES/FINE ARTS

Fine Arts (Visual and Performing Arts)
ARTS 1301 ......................... Art Appreciation
ARTS 1303 ......................... Art History I
ARTS 1304 ......................... Art History II
ARTS 1311 ......................... Design I
ARTS 2356 ......................... Fundamentals of Photography I
COMM 1336 ......................... Introduction to Radio-Television Production
DRAM 1310 ......................... Introduction to Theater
DRAM 1351 ......................... Acting I
DRAM 2366 ......................... America Cinema
HUMA 1315 ......................... Survey of Art and Music
MUSI 1306 ......................... Music Appreciation
MUSI 1310 ......................... American Music
MUSI or MUAP (Any Music course or combination of courses with a Common Course Number)

Humanities
ANTH 2346 ......................... General Anthropology and the Humanities
ANTH 2351 ......................... Cultural Anthropology
ENGL 2324 ......................... Masterworks of English Literature
ENGL 2323 ......................... Masterworks of English Literature
ENGL 2327 ......................... American Literature: Beginning to Civil War
ENGL 2328 ......................... American Literature: Civil War to Present
ENGL 2331 ......................... Literature of the Non-Western World
ENGL 2332 ......................... Literature of the Western World
ENGL 2333 ......................... Literature of the Western World
FREN 1341 ......................... Selected Studies in Literature
FREN 1311 ......................... Second-Year French I
FREN 1312 ......................... Second-Year French II
GERM 1311 ......................... Second-year German I
GERM 1312 ......................... Second-year German II
HIST 1311 ......................... Western Civilization
HUMA 1301 ......................... Humanities - Ancient to Medieval
HUMA 1302 ......................... Humanities - Renaissance to Modern
HUMA 1315 ......................... Survey of Art and Music
PHIL 1301 ......................... Introduction to Philosophy
PHIL 1304 ......................... Introduction to World Religion
PHIL 2306 ......................... Introduction to Ethics
RELG 1301 ......................... The Old Testament
RELG 1302 ......................... The New Testament
SOCI 2319 ......................... Minority Studies
SPAN 2311 ......................... Second-year Spanish I
SPAN 2312 ......................... Second-year Spanish II

Social and Behavioral Sciences
ANTH 2346 ......................... General Anthropology and the Humanities
ANTH 2351 ......................... Cultural Anthropology
CRJU 1301 ......................... Introduction to Criminal Justice
CRJU 1307 ......................... Crimes in America
ECON 1301 ......................... Introduction to Economics
ECON 2301 ......................... Principles of Economics I
ECON 2302 ......................... Principles of Economics II
GEOG 1302 ......................... Cultural Geography
GOVT 2305 ......................... Government of the United States
GOVT 2306 ......................... Government of Texas and United States
HIST 1301 ......................... History of the United States I
HIST 1302 ......................... History of the United States II
HIST 2311 ......................... Western Civilization
HIST 2322 ......................... Comparative World History
PHED 1304.................................Concepts of Healthful Living
PSYC 2301.................................General Psychology
PSYC 2302.................................Psychology of Human Relations
PSYC 2308.................................Child Psychology
PSYC 2315.............Human Behavior and Personal Adjustment
SOCI 2301.......................................Marriage and the Family
SOCI 1301.................................Introduction to Sociology
SOCI 1306.................................Modern Social Problems
SOCI 2319.................................Minority Studies

Lifetime Fitness
Any PHED course numbered 1101-1122.

ACCOUNTING ASSOCIATE
Program Advisor: Mike Glasscock, 371-5249 (glasscock-mr@actx.edu) or contact the Business Division, 371-5269

ASSOCIATE IN APPLIED SCIENCE
Major Code - ACNT.AAS
This program is designed for the student who plans to start a business career after two years of concentrated study in the field of accounting and related business subjects. Students seeking a four-year accounting degree should follow the Business Administration degree plan.

GENERAL EDUCATION REQUIREMENTS*..........................18
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1321: Business and Professional Speaking
Humanities/Fine Arts*
Mathematics/Natural Sciences
MATH 1333: Contemporary Mathematics (or any MATH*)
Social/Behavioral Sciences
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas

MAJOR COURSE REQUIREMENTS..........................18
ACCT 2301/2302: Accounting Principles I and II
ACNT 1311: Introduction to Computerized Accounting
ACNT 1329: Payroll and Business Tax Accounting
ACNT 2303: Intermediate Accounting I
ACNT 2309: Cost Accounting

RELATED COURSE REQUIREMENTS..........................22
BCIS 1301: Microcomputer Applications
BUSI 1301: Introduction to Business
BUSI 2301: Business Law I
BUSI 2371: Principles of Management
BCIS 1405: Business Computer Applications
ECON 2301: Principles of Economics I
ECON 2301/2302: Accounting Principles I and II
ACNT 2309: Cost Accounting

ELECTIVES or Practicum..........................6
TOTAL.............................................64

ACCOUNTING ASSOCIATE
Program Advisor: Mike Glasscock, 371-5249 (glasscock-mr@actx.edu) or contact the Business Division, 371-5269

CERTIFICATE OF COMPLETION
Major Code - ACNT.CERT
Contact the Testing Center or the Program Advisor for testing requirements.
Testing requirements are based on the unique needs of the certificate program.

This program is designed for the student who plans to start a business career after one year of concentrated study in the field of accounting and related business subjects. Students seeking a four-year accounting degree should follow the Business Administration degree plan.

GENERAL EDUCATION REQUIREMENT..........................3
ECON 2301: Principles of Economics I
ECON 2302: Principles of Economics II

MAJOR COURSE REQUIREMENTS..........................15
ACCT 2301/2302: Accounting Principles I and II
Must complete three of the following courses:
ACNT 1311: Introduction to Computerized Accounting
ACNT 1329: Payroll and Business Tax Accounting
ACNT 2303: Intermediate Accounting I
ACNT 2309: Cost Accounting

RELATED COURSE REQUIREMENTS..........................10
BUSI 1301: Introduction to Business
BCIS 1405: Business Computer Applications
Must complete one of the following related courses:
BCIS 1301: Microcomputer Applications
BUSI 2301: Business Law I
BUSI 2371: Principles of Management
ENGL 1301: Freshman Composition I
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
MATH 1333: Contemporary Mathematics (or any MATH*)
POFT 1325: Business Math and Machine Applications
SPCH 1321: Business and Professional Speaking

ELECTIVES or Practicum..........................3
TOTAL.............................................31

ADVERTISING/PUBLIC RELATIONS
(See Mass Communication)

ARCHITECTURE
(PRE-ARCHITECTURE)
Program Advisor: Dr. Kathryn Wetzel, 371-5097 (wetzel-kc@actx.edu) or contact the Sciences and Engineering Division, 371-5091

ASSOCIATE IN SCIENCE
Major Code - ARCH.AS
Provides the basic courses for the first two years of a four to six year degree in architecture. Note: For transfer, a portfolio of student work in ARCH and ART courses may be required by senior institutions.

GENERAL EDUCATION REQUIREMENTS*..........................42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1321: Business and Professional Speaking

Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas

Humanities/Fine Arts
Humanities*
Fine Arts*

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
Mathematics/Natural Sciences
  MATH 1348: Analytic Geometry
  PHYS 1301/1101: College Physics I/Lab
  PHYS 1302/1102: College Physics II/Lab

Lifetime Fitness
  Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS .............................................14
  MATH 2413: Calculus I
  ARCH 2201/2202: Design Communications I and II
  ARTS 1316/1317: Drawing I and II

RECOMMENDED COURSES ..................................................10
  Students will be advised for other courses based on the university to which they plan to transfer.

TOTAL ..............................................................................66

Optional Courses:
  ENGR 1304: Engineering Graphics
  ENGR 1372: Computer Graphics
  ARTS 1303: Art History I
  ARTS 1304: Art History II
  HECO 1325: Interior Design

ART
  Program Advisor: Bill Burrell, 371-5282 (burrell-wm@actx.edu) or Ken Pirtle, (pirtle-kd@actx.edu) 371-5271 or contact the Language, Communication and Fine Arts Division, 371-5267

ASSOCIATE IN SCIENCE
  Major Code - ARTS.AS

GENERAL EDUCATION REQUIREMENTS* ................................42
  Communication
    ENGL 1301: Freshman Composition I
    ENGL 1302: Freshman Composition II
    SPCH*
  Social/Behavioral Sciences
    HIST 1301: History of the U.S. I
    HIST 1302: History of the U.S. II
    GOVT 2305: Government of the U.S.
    GOVT 2306: Government of Texas
    Social/Behavioral Sciences* Elective
  Humanities/Fine Arts
    Humanities
    Literature*
    Fine Arts
      ARTS 1303: Art History I
  Mathematics/Natural Sciences
    MATH*
    Natural Sciences*
  Lifetime Fitness
    Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS .............................................21
  ARTS 1304: Art History II
  ARTS 1311/1312: Design I and II
  ARTS 1316/1317: Drawing I and II
  ARTS 2316: Painting I
  ARTS 2323: Drawing III

MAJOR OPTIONS ...........................................................3
  Students should select a program concentration in Art, Graphic Design, or Digital Art.
  Art
    ARTS 2317: Painting II
  Graphic Design
    ARTS 2313: Design Communication I
  Digital Art
    ARTS 2348: Digital Art I

TOTAL ..............................................................................66

ART - GRAPHIC DESIGN
  Program Advisors: Steven Cost, 345-5546 (cost-s@actx.edu) or Pete Gonzalez, 345-5547 (gonzalez-p@actx.edu) or contact the Language, Communication and Fine Arts Division, 371-5267

ASSOCIATE IN APPLIED SCIENCE
  Major Code - ARTC.AAS

GENERAL EDUCATION REQUIREMENTS* ................................15
  Communication
    ENGL 1301: Freshman Composition I
    SPCH*
  Humanities/Fine Arts
    ARTS 1304: Art History II
  Mathematics/Natural Sciences
    MATH 1333: Contemporary Mathematics (or any MATH*)
  Social/Behavioral Sciences*

MAJOR REQUIREMENTS .....................................................36
  ARTS 1311: Design I
  ARTS 1316/1317: Drawing I and II
  ARTS 2323: Drawing III
  ARTC 1325: Introduction to Computer Graphics
  ARTC 1327: Typography
  ARTC 2317: Typographic Design
  ARTC 1353: Computer Illustration
  ARTC 2305: Digital Painting and Imaging
  ARTC 2335: Portfolio Development
  ARTC 2311: History of Communication Graphics
  IMED 1316: Web Design I

SPECIALTY OPTIONS ......................................................17-18
  Students should select one of the following specialty options:
  Print Media
    ARTC 1313/2313: Digital Publishing I and II
    ARTS 2313/2314: Design Communication I and II
    ARTS 2316: Painting I
    ARTS 2356: Fundamentals of Photography I
  Animation
    IMED 1211: Storyboard
    IMED 2315: Web Design II
    ARTC 1305: Basic Animation
    ARTC 1341/2341: 3-D Animation I and II
    ARTC 1345: 3-D Modeling and Rendering

TOTAL ..............................................................................68-69

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
ART - GRAPHIC DESIGN
Program Advisors: Steven Cost, 345-5546 (cost-s@actx.edu) or Pete Gonzalez, 345-5547 (gonzalez-p@actx.edu) or contact the Language, Communication and Fine Arts Division, 371-5267

CERTIFICATE OF COMPLETION
Major Code - ARTC.CERT.GD
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

Prepares students for entry level employment in a graphic design print media position.

MAJOR REQUIREMENTS ..........................................................33
ARTC 1325: Introduction to Computer Graphics
ARTC 1327: Typography
ARTC 2317: Typographic Design
ARTC 1353: Computer Illustration
ARTC 2305: Digital Painting and Imaging
ARTC 2311: History of Communication Graphics
ARTC 1313: Digital Publishing I
ARTS 1316: Drawing I
ARTC 2335: Portfolio Development
ARTS 1311: Design I
COMM 2327: Introduction to Advertising

TOTAL ......................................................................................33

AUTOMOTIVE COLLISION TECHNOLOGY
Program Advisor: Henry Wyckoff, 335-4209 (wyckoff-ha@actx.edu) or contact the Transportation Department, 335-4370

CERTIFICATE OF COMPLETION
Major Code - ABDR.CERT.ABRT
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

This course of study is designed to prepare the student in the area of auto collision repair. Upon completion, the student will be able to enter the industry with a comprehensive understanding of Auto Collision Technology.

MAJOR REQUIREMENTS ..........................................................37
ABDR 1455: Minor Metal Repair
ABDR 1441: Structural Analysis and Damage I
ABDR 1442: Structural Analysis and Damage II
ABDR 1315: Vehicle Interior Trim
ABDR 1349: Automotive Plastic and Sheet Molding Compound Repair
ABDR 1431: Basic Refinishing
ABDR 2449: Advanced Refinish I
ABDR 2402: Autobody Mechanical and Electrical Service
ABDR 2441: Major Collision Repair and Panel Replacement
ABDR 1327: Suspension Systems

TOTAL ......................................................................................37

AUTOMOTIVE TECHNOLOGY
Program Advisor: Henry Wyckoff, 335-4209 (wyckoff-ha@actx.edu) or contact the Transportation Department, 335-4370

ASSOCIATE IN APPLIED SCIENCE
Major Code - AUMTAAS

This program prepares a person to be an automotive technician and for ASE certification. The student works with the latest in automotive test equipment in hands-on laboratory experiences. Completion of this program prepares the student to work in the automotive industry.

SEMESTER HOURS

GENERAL EDUCATION REQUIREMENTS* ................................15
Communications
   ENGL 1301: Freshman Composition I
   SPCH*
Social/Behavioral Science*
Humanities/Fine Arts*
Mathematics/Natural Sciences
   MATH 1333: Contemporary Mathematics (or any MATH*)

TRANSPORTATION CORE REQUIREMENTS .......................15
DEMR 1301: Shop Safety and Procedures
AUMT 1307: Automotive Electrical Systems
DEMR 1323: HVAC Troubleshooting and Repair
ABDR 1327: Suspension Systems
AUMT 1310: Automotive Brake Systems

PROGRAM REQUIREMENTS ..................................................39
AUMT 1345: Automotive Heating and Air Conditioning
AUMT 1353: Automotive Electrical Systems Theory
AUMT 1357: Automotive Brake Systems
AUMT 1316: Suspension and Steering
AUMT 1319: Automotive Engine Repair
AUMT 2305: Theory of Automotive Engines
AUMT 2315: Theory of Engine Performance Analysis I
AUMT 2309: Manual Drive Train and Axle Theory
AUMT 2313: Manual Drive Train and Axles
AUMT 2323: Theory of Automatic Transmission and Transaxle

AUMT 2325: Automatic Transmission and Transaxle
AUMT 2334: Engine Performance Analysis II

TOTAL ......................................................................................69

AUTOMOTIVE TECHNOLOGY
Program Advisor: Henry Wyckoff, 335-4209 (wyckoff-ha@actx.edu) or contact the Transportation Department, 335-4370

CERTIFICATES OF COMPLETION
Major Code - BELOW
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

POWER TRAIN
Major Code - AUMT.CERT.PTRN
Prepares students to be an Automotive Technician with an expertise in the following areas.

SEMESTER HOURS

TRANSPORTATION CORE REQUIREMENTS .......................15
AUMT 2305: Theory of Automotive Engines
AUMT 1319: Automotive Engine Repair
AUMT 2323: Theory of Automatic Transmissions and Transaxle
AUMT 2325: Automatic Transmissions and Transaxle
AUMT 2309: Manual Drive Train and Axle Theory
AUMT 2313: Manual Drive Trains and Axles
AUMT 2315: Theory of Engine Performance and Analysis I

MAJOR REQUIREMENTS ......................................................27
AUMT 2305: Theory of Automotive Engines
AUMT 1319: Automotive Engine Repair
AUMT 2323: Theory of Automatic Transmissions and Transaxle
AUMT 2325: Automatic Transmissions and Transaxle
AUMT 2309: Manual Drive Train and Axle Theory
AUMT 2313: Manual Drive Trains and Axles
AUMT 2315: Theory of Engine Performance and Analysis I

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
AUMT 2331: Theory of Engine Performance and Analysis II  
AUMT 2334: Engine Performance Analysis II  
**TOTAL.................................................................42**

**CHASSIS AND BODY**  
Major Code - AUMT.CERT.CHSS  
Prepares students to be an Automotive Technician with an expertise in the following areas.

**TRANSPORTATION CORE REQUIREMENTS ............15**

**MAJOR REQUIREMENTS ....................................12**

AUMT 1345: Automotive Heating and Air Conditioning  
AUMT 1353: Automotive Electrical Systems Theory  
AUMT 1316: Suspension and Steering  
AUMT 1357: Automotive Brake Systems  
**TOTAL ..................................................................27**

**DIESEL FUEL SYSTEMS**  
Major Code - AUMT.CERT.DFS  
Prepares students to be an Automotive Technician with an expertise in the following areas.

**TRANSPORTATION CORE REQUIREMENTS ............15**

**MAJOR REQUIREMENTS ....................................12**

AUMT 1353: Automotive Electrical Systems Theory  
AUMT 2331: Theory of Engine Performance Analysis II  
DEMR 1313: Fuel Systems  
DEMR 2334: Advanced Diesel Tune-up and Troubleshooting  
**TOTAL ..................................................................27**

**AVIATION MAINTENANCE TECHNOLOGY**  
Program Advisor: Dennis Moseley, 335-4381 (moseley-dm@actx.edu) or contact the Aerospace Technology Department, 335-4201

**ASSOCIATE IN APPLIED SCIENCE**  
Major Code - AERM.AAS  
Prepares and qualifies students to take all FAA Licensing Exams for Airframe or Powerplant certification. Students enter the industry with a comprehensive understanding of Aviation Maintenance Technology.

**SEMESTER HOURS**

**GENERAL EDUCATION REQUIREMENTS* .............15**

Communications  
ENGL 1301: Freshman Composition I  
SPCH*

Mathematics/Natural Sciences  
MATH 1333: Contemporary Mathematics (or any MATH*)

Social/Behavioral Science*  
Humanities/Fine Arts*  
**MAJOR COURSE REQUIREMENTS ..........................16**

AERM 1101: Introduction to Aviation  
AERM 1205: Weight and Balance  
AERM 1208: Federal Aviation Regulations  
AERM 1210: Ground Operations  
AERM 1314: Basic Electricity  
AERM 1315: Aviation Science  
AERM 1373: Shop Practices  
**MAJOR OPTIONS ..................................................32-33**  
The student must choose one of the following specialties:  
Airframe ..............................................................32  
Prepares and qualifies students to take the General and Airframe sections of the FAA Licensing Exams. Meets the minimum requirements for positions within the aircraft manufacturing industry.

AERM 1241: Wood, Fabric, and Finishes  
AERM 1243: Instruments and Navigation/Communication  
AERM 1247: Airframe Auxiliary Systems  
AERM 1253: Aircraft Welding  
AERM 1254: Aircraft Composites  
AERM 1345: Airframe Electrical Systems  
AERM 1349: Hydraulic, Pneumatic, and Fuel Systems  
AERM 1350: Landing Gear Systems  
AERM 1372: Aircraft Sheet Metal  
AERM 2231: Airframe Inspection  
AERM 2233: Assembly and Rigging  
EPCT 1307: Introduction to Environmental Safety and Health  
QCTC 1341: Statistical Process Control  
**Powerplant .........................................................33**  
Prepares and qualifies students to take the General and Powerplant sections of the FAA Licensing Exams.

AERM 1240: Aircraft Propellers  
AERM 1254: Aircraft Composites  
AERM 1344: Aircraft Reciprocating Engines  
AERM 1351: Aircraft Turbine Engine Theory  
AERM 1456: Aircraft Powerplant Electrical  
AERM 2341: Powerplant and Auxiliary Power Units  
AERM 2351: Aircraft Turbine Engine Overhaul  
AERM 2352: Aircraft Powerplant Inspection  
AERM 2447: Aircraft Reciprocating Engine Overhaul  
EPCT 1307: Introduction to Environmental Safety and Health  
QCTC 1341: Statistical Process Control  
**TOTAL ..............................................................63-64**

**AVIATION MAINTENANCE TECHNOLOGY**  
**CERTIFICATES OF COMPLETION**  
**Major Codes - BELOW**

Program Advisor: Dennis Moseley, 335-4381 (moseley-dm@actx.edu) or Contact the Aerospace Technology Department, 335-4201

Contact the Testing Center or the Program Advisor for testing requirements.  
Testing requirements are based on the unique needs of the certificate program.

A certificate will be issued per FAA regulations at the completion of Airframe, and Powerplant sections.

**AIRFRAME MECHANIC**  
Major Code - AERM.CERT.AM  
Prepares and qualifies students to take the General and Airframe section of the FAA Licensing Exams.

**SEMESTER HOURS**

**MAJOR COURSE REQUIREMENTS ..........................42**

AERM 1101: Introduction to Aviation  
AERM 1205: Weight and Balance  
AERM 1208: Federal Aviation Regulations  
AERM 1210: Ground Operations  
AERM 1241: Wood, Fabric, and Finishes  
AERM 1243: Instruments and Navigation/Communication  
AERM 1247: Airframe Auxiliary Systems  
AERM 1253: Aircraft Welding  

*Please see pages 44-46 for General Education Requirements and Course List  
**Please see pages 9-10 for Testing Requirements for Certificate Programs
AERM 1254: Aircraft Composites
AERM 1314: Basic Electricity
AERM 1315: Aviation Science
AERM 1345: Airframe Electrical Systems
AERM 1349: Hydraulic, Pneumatic, and Fuel Systems
AERM 1350: Landing Gear Systems
AERM 1372: Aircraft Sheet Metal
AERM 1373: Shop Practices
AERM 2231: Airframe Inspection
AERM 2233: Assembly and Rigging

**TOTAL** ................................................................. 42

**POWERPLANT MECHANIC**
Major Code - AERM.CERT.PM

Prepares and qualifies students to take the General and Powerplant section of the FAA Licensing Exams.

**MAJOR COURSE REQUIREMENTS** ................................ 41

AERM 1110: Introduction to Aviation
AERM 1205: Weight and Balance
AERM 1208: Federal Aviation Regulations
AERM 1210: Ground Operations
AERM 1240: Aircraft Propellers
AERM 1314: Basic Electricity
AERM 1315: Aviation Science
AERM 1344: Aircraft Reciprocating Engines
AERM 1351: Aircraft Turbine Engine Theory
AERM 1373: Shop Practices
AERM 1456: Aircraft Powerplant Electrical
AERM 2341: Powerplant and Auxiliary Power Units
AERM 2351: Aircraft Turbine Engine Overhaul
AERM 2352: Aircraft Powerplant Inspection
AERM 2447: Aircraft Reciprocating Engine Overhaul

**TOTAL** ................................................................. 41

**AEROSPACE MANUFACTURING**
Major Code - AERM.CERT.AERO

Program Advisor: Joe Gandy, 335-4382 (gandy-jm@actx.edu) or contact the Aeropace Technology Department, 335-4201

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

Prepares and qualifies students to be proficient in the skills required for aerospace and aircraft manufacturing careers.

**MAJOR COURSE REQUIREMENTS** ................................ 24

AERM 1254: Aircraft Composites
AERM 1303: Shop Practices - Aerospace Manufacturing
AERM 1391: Special Topics: Fasteners
AVNC 1343: Aircraft Electrical and Electronic Systems Installation
DFTG 2442: Aeronautical Drafting
EPCT 1307: Introduction to Environmental Safety & Health
QCTC 1341: Statistical Process Control
TECM 1303: Technical Mathematics

**TOTAL** ................................................................. 24

Optional Courses:
AERM 1101: Introduction to Aviation
AERM 1380: Cooperative Education: Aircraft Mechanic/Technician Airframe

**BIOLOGY**
(Dentistry, Medical Technology, Medicine, Optometry, Veterinary Medicine)

Program Advisor: Dr. Robert Bauman, 371-5093 (bauman-rw@actx.edu) or contact the Science and Engineering Division, 371-5091

**ASSOCIATE IN SCIENCE**
Major Code - BIOL.AS

This curriculum has a combination of 15 credit hours of sophomore level courses or courses requiring prerequisite(s).

**GENERAL EDUCATION REQUIREMENTS** .................................. 42

**Communication**
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II

**Social/Behavioral Sciences**
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective

**Humanities/Fine Arts**
Humanities*
Fine Arts*

**Mathematics/Natural Sciences**
MATH 1314: College Algebra or higher level math
BIOL 1406: Biology I
BIOL 1407: Biology II

**Lifetime Fitness**
Any PHED course numbered 1101-1122

**MAJOR COURSE REQUIREMENTS** ................................ 11

BIOL 2316: Genetics
CHEM 1311/1111: Principles of Chemistry I
CHEM 1312/1112: Principles of Chemistry II

**RECOMMENDED COURSES** ............................................. 12

Students will be advised for other courses based on the university to which they plan to transfer.

**TOTAL** ................................................................. 65

Recommended courses:
BIOL 1411: Botany
BIOL 1413: Zoology
BIOL 2471: Biotechnology I
BIOL 2472: Biotechnology II
BIOL 2306: Environmental Science
BIOL 2306: Environmental Science Lab
BIOL 2401: Human Anatomy and Physiology I
BIOL 2402: Human Anatomy and Physiology II
BIOL 2404: Human Physiology
BIOL 2421: Microbiology
CHEM 2323: Organic Chemistry I
CHEM 2223: Organic Chemistry I Lab
CHEM 2325: Organic Chemistry II
CHEM 2225: Organic Chemistry II Lab
GEOL 1303: Physical Geology
GEOL 1103: Physical Geology Lab
GEOL 1304: Historical Geology
GEOL 1104: Historical Geology Lab
PHYS 1301: College Physics I
PHYS 1101: College Physics I Laboratory
PHYS 1302: College Physics II
PHYS 1102: College Physics II Laboratory

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs**
BIOL 2289/2389: Special Topics in Biology

BIOTECHNOLOGY
Program Advisor: Dan Porter, 371-5384 (porter-da@actx.edu) or contact the Science and Engineering Division, 371-5091

ASSOCIATE IN SCIENCE
Major Code - BIOTAS

GENERAL EDUCATION REQUIREMENTS* .................................. 42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH*

Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas

Social/Behavioral Sciences* Elective

Humanities/Fine Arts
Humanities*
Fine Arts*

Mathematics/Natural Sciences
MATH 1316: Trigonometry
BIOL 1406: Biology I
BIOL 1407: Biology II

Lifetime Fitness
Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS ........................................ 16
BIOL 2471: Biotechnology I
BIOL 2472: Biotechnology II
CHEM 1311/1111: Principles of Chemistry I
CHEM 1312/1112: Principles of Chemistry II

RECOMMENDED COURSES .............................................. 7
Students can choose two from the following list.

TOTAL ............................................................................. 66
Optional courses:
BIOL 2421: Microbiology
CHEM 2323: Organic Chemistry I
CHEM 2223: Organic Chemistry I Lab
PHYS 1301: College Physics I
PHYS 1101: College Physics I Lab
MATH 2413: Calculus I

BUSINESS ADMINISTRATION
COMPUTER INFORMATION SYSTEMS
Program Advisor: Duane Lintner, 371-5211 (lintner-dd@actx.edu) or contact the Computer Information Systems Department, 371-5238

ASSOCIATE IN SCIENCE
Major Code - BUSIAS.CIS

The pre-professional business curriculum in Computer Information Systems provides basic courses for the first two years of a Bachelor of Business Administration degree with a major in Business Computer Information Systems.

GENERAL EDUCATION REQUIREMENTS* ......................... 42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1321: Business and Professional Speaking

Humanities/Fine Arts
Humanities
Literature*

Fine Arts*

Lifetime Fitness
Any PHED course numbered 1101-1122

Mathematics/Natural Sciences
MATH 1324: Math for Business Decisions I
Natural Sciences*

Social/Behavioral Sciences
ECON 2301: Principles of Economics I
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II

MAJOR COURSE REQUIREMENTS ........................................ 18
ACCT 2301: Accounting Principles I
ACCT 2302: Accounting Principles II
BUSI 1301: Introduction to Business
COSC 1301: Computer Concepts
ECON 2302: Principles of Economics II
MATH 1325: Math for Business Decisions II

RECOMMENDED COURSES .............................................. 3
Students will be advised for other courses based on the University to which they plan to transfer

TOTAL ............................................................................. 63

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
ASSOCIATE IN SCIENCE
Major Code - CHEM.AS
Provides courses needed by students to qualify to enter the junior year as a chemistry major at most senior institutions.
#MATH 2413: 3 hours satisfy General Education Requirements; additional hour will satisfy chemistry major transfer to four-year institutions.

GENERAL EDUCATION REQUIREMENTS* .............................................43
Communication
   ENGL 1301: Freshman Composition I
   ENGL 1302: Freshman Composition II
   SPCH*
Social/Behavioral Sciences
   HIST 1301: History of the U.S. I
   HIST 1302: History of the U.S. II
   GOVT 2305: Government of the U.S.
   GOVT 2306: Government of Texas
   Social/Behavioral Sciences* Elective
Humanities/Fine Arts
   Humanities*
   Fine Arts*
Mathematics/Natural Sciences
   MATH 2413: Calculus I#
   PHYS 2425: Principles of Physics I
   PHYS 2426: Principles of Physics II
Lifetime Fitness
   PHED course numbered 1101-1122
MAJOR COURSE REQUIREMENTS ..................................................13
CHEM 2323/2223: Organic Chemistry I
CHEM 2325/2225: Organic Chemistry II
COSC 1317: Computer Programming for Engineers and Scientists
RECOMMENDED COURSES .....................................................10
Students will be advised for other courses based on the university to which they plan to transfer.

TOTAL .................................................................66

Optional courses:
   MATH 1348: Analytic Geometry
   MATH 2414: Calculus II
   CHEM 1311/1111: Principles I and Lab
   CHEM 1312/1112: Principles II and Lab
   CHEM 2289/2389: Academic Cooperative in Chemistry

CHILD DEVELOPMENT/EARLY CHILDHOOD
Program Advisor: Mary Clare Munger, 356-3688 (munger-mc@actx.edu) or contact the Behavioral Studies Division, 371-5296

MAJOR COURSE REQUIREMENTS ..................................................45
CDEC 1196: Special Topics in Administration for Young Children
CDEC 1264: Practicum (Observation Techniques)
CDEC 1294: Special Topics in Advanced Child Care Practices
CDEC 1319: Child Guidance
CDEC 1321: The Infant and Toddler
CDEC 1356: Emergent Literacy for Early Childhood
CDEC 1358: Creative Arts for Early Childhood
CDEC 1359: Children with Special Needs
CDEC 2264: Practicum (Advanced Child Care Practices)
CDEC 2265: Practicum (Management)
CDEC 2307: Math and Science for Early Childhood
CDEC 2326: Administration of Programs for Children I
CDEC 2328: Administration of Programs for Children II
TECA 1303: Family, School, and Community
TECA 1311: Educating Young Children
TECA 1318: Wellness of the Young Child
TECA 1354: Child Growth and Development
RELATED REQUIRED COURSE ..................................................3
COSC 1301: Computer Concepts

TOTAL .................................................................66

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
CDEC 1264: Practicum (Observation Techniques)
CDEC 1294: Special Topics in Advanced Child Care Practices
CDEC 1313: Curriculum Resources for Early Childhood Programs
CDEC 1319: Child Guidance
CDEC 1356: Emergent Literacy for Early Childhood
CDEC 1358: Creative Arts for Early Childhood
CDEC 1359: Children with Special Needs
CDEC 2307: Math and Science for Early Childhood
CDEC 2264: Practicum (Advanced Child Care Practices)
CDEC 2341: The School Age Child
TECA 1311: Educating Young Children
TECA 1318: Wellness of the Young Child
TECA 1354: Child Growth and Development
TECA 1303: Family, School, and Community

TOTAL ................................................................. 40

CDEC PROVIDER
Major Code - CDEC.CERT.PRVD
This program is designed for students planning to work as child care providers in a child care facility.

MAJOR COURSE REQUIREMENTS .............................. 36
CDEC 1264: Practicum (Observation Techniques)
CDEC 1294: Special Topics in Advanced Child Care Practices
CDEC 1319: Child Guidance
CDEC 1321: The Infant and Toddler
CDEC 1356: Emergent Literacy for Early Childhood
CDEC 2307: Math and Science for Early Childhood
CDEC 1358: Creative Arts for Early Childhood
CDEC 1359: Children with Special Needs
CDEC 2264: Practicum (Advanced Child Care Practices)
TECA 1303: Family, School and Community
TECA 1311: Educating Young Children
TECA 1318: Wellness of the Young Child
TECA 1354: Child Growth and Development

TOTAL ................................................................. 36

CDEC ADMINISTRATOR
Major Code - CDEC.CERT.ADMN
This program is designed for students planning to become a director or manager in a child care facility.

MAJOR COURSE REQUIREMENTS .............................. 42
CDEC 1196: Special Topics in Administration for Programs for Young Children
CDEC 1264: Practicum (Observation Techniques)
CDEC 1294: Special Topics in Advanced Child Care Practices
CDEC 1319: Child Guidance
CDEC 1321: The Infant and Toddler
CDEC 1356: Emergent Literacy for Early Childhood
CDEC 1358: Creative Arts for Early Childhood
CDEC 2307: Math and Science for Early Childhood
CDEC 2264: Practicum (Advanced Child Care Practices)
CDEC 2265: Practicum (Management)
CDEC 2326: Administration of Programs for Children I
CDEC 2328: Administration of Programs for Children II
TECA 1303: Family, School and Community
TECA 1311: Educating Young Children

TOTAL ................................................................. 42

TECA 1318: Wellness of the Young Child
TECA 1354: Child Growth and Development

TOTAL ............................................................................. 42

CDA CREDENTIAL OPTION
Major Code - CDEC.SHT.CDA
Students completing this program will be awarded a departmental certificate. Application for graduation is not required and students will not participate in commencement. Departmental certificates will not be recorded on official transcripts. Contact the department chair for additional information.

These courses provide academic course work preparation for the Child Development Associate national Credential. After completion of the following two courses the student must follow all necessary channels required by the CDA Consortium to attain a CDA credential.

CDEC 1294: Special Topics in Advanced Child Care Practices
CDEC 2264: Practicum (Advanced Child Care Practices)
TECA 1354: Child Growth and Development

TOTAL ............................................................................. 7

TECA - Texas Early Childhood Articulation academic transfer course that will partially satisfy the first two-year requirements of a Child Development/Early Childhood baccalaureate degree at any Texas public university.

COMPUTER INFORMATION SYSTEMS

Program advisor: Duane Lintner, 371-5211 (lintner-dd@actx.edu) or contact the Computer Information Systems Department, 371-5238

ASSOCIATE IN APPLIED SCIENCE
Major Codes - Below

This CIS curriculum provides several program concentrations that prepare an individual for today’s business computer industry opportunities. Each program prepares an individual for entry-level position in one of these areas: AS/400 Application Development, Computer Business Specialist, Software Systems and Networking, Computer Programming, and World Wide Web Software Development.

All major course requirements are to be taken in the order approved by the students’ Individual CIS Advisor. The student must have a grade of C or higher in all required courses in order to progress to the next level of the program. To remain eligible for enrollment in subsequent CIS courses, a student may repeat a particular CIS course only once and may repeat only two CIS courses.

GENERAL EDUCATION REQUIREMENTS* .................. 15
Communication
- ENGL 1301: Freshman Composition I
- SPCH 1315: Public Speaking
- SPCH 1321: Business and Professional Speaking

Humanities/Fine Arts*
- Mathematics/Natural Sciences
- MATH 1324: Math for Business Decisions
- Social/Behavioral Sciences
- ECON 2301: Principles of Economics

MAJOR COURSE REQUIREMENTS .......................... 25
BCIS 1301: Microcomputer Applications

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
**MAJOR OPTIONS** .................................................................30-32

Students should select a program concentration in AS/400 Application, Microcomputer Specialist, Software Systems and Networking Development, Systems Programming, or World Wide Web Software Development.

## AS/400 APPLICATION DEVELOPMENT

### Major Code - COSC.AAS.AS400

- ITSE 1418: Introduction to COBOL Programming
- BCIS 2390: Systems Analysis I
- ITSE 2451: Advanced COBOL Programming II
- ITSC 1402: Computer Control Language
- ITSC 1411: AS/400 Operating Systems I
- ITSE 1414: Introduction to RPG Programming
- ITSE 2347: Advanced Database Programming
- ITSE 2345: Advanced RPG Programming

## COMPUTER BUSINESS SPECIALIST

### Major Code - COSC.AAS.MICRO

- ACCT 2301: Accounting Principles I
- CPMT 1305: IT Essentials I
- ITSE 1418: Introduction to COBOL Programming
  
  or .................................................................
  
  - BCIS 2431: Visual Basic Programming
  - BCIS 2390: Systems Analysis I
  - MATH 1342: Statistics
  - ENGL 2311: Technical Writing
  - ITSC 1411: AS/400 Operating Systems I
  - ITSE 2335: Application Problem Solving
  - ITSE 2347: Advanced Database Programming
  - ITCC 1302: CCNAI: Networking Basics

## SOFTWARE SYSTEMS AND NETWORKING

### Major Code - COSC.AAS.NTWRK

- ITSC 1402: Computer Control Language
  
  or .................................................................
  
  - BCIS 2431: Visual Basic Programming
  - BCIS 2390: Systems Analysis I
  - ITCC 1302: CCNAI: Networking Basics

## COMPUTER INFORMATION SYSTEMS

### CERTIFICATE OF COMPLETION

### Major Code - COSC.CERT

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

This curriculum is designed to provide the student with general familiarity with both microcomputers and larger business computer systems, programming, and software systems. Students with preparation in other fields often find this program adequate to provide the working knowledge of computers to assist them in their chosen field.

### GENERAL EDUCATION REQUIREMENTS .............................9

- ENGL 1301: Freshman Composition I
- MATH 1324: Math for Business Decisions I

### MAJOR COURSE REQUIREMENTS .................................25

- BCIS 1301: Microcomputer Applications
- BUSI 1301: Introduction to Business
- BCIS 1405: Business Computer Applications
- COSC 1415: Programming Techniques and Logic Design I
- ITSC 1313: Internet/Web Page Development
- ITSC 1407: UNIX Operating System I
- ITSE 2409: Introduction to Database Programming

### TOTAL .................................................................34

## COMPUTER SCIENCE

(See Engineering Computer Science)

## CONVENIENCE STORE MANAGEMENT

(See Management)

## CRIMINAL JUSTICE

Program Advisor: Sarah Uselding, 356-3618 (uselding-se@actx.edu) or contact the Criminal Justice Programs, 354-6081

### ASSOCIATE IN SCIENCE

### Major Code - CRIJ.AS

Designed to transfer to senior institutions which offer a
four-year degree in Criminal Justice.

<table>
<thead>
<tr>
<th>SEMESTER HOURS</th>
<th>GENERAL EDUCATION REQUIREMENTS*</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>ENGL 1301: Freshman Composition I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 1302: Freshman Composition II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPCH*</td>
<td></td>
</tr>
<tr>
<td>Mathematics/Natural Sciences</td>
<td>MATH*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NATURAL SCIENCES*</td>
<td></td>
</tr>
<tr>
<td>Humanities/Fine Arts</td>
<td>SOCI 2319: Minority Studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Visual and Performing Arts*</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>HIST 1301: History of the U.S. I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HIST 1302: History of the U.S. II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GOVT 2305: Government of the U.S.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GOVT 2306: Government of Texas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences Elective*</td>
<td></td>
</tr>
<tr>
<td>Lifetime Fitness*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR CORE REQUIREMENTS</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>CRIJ 1301: Introduction to Criminal Justice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 1306: Court Systems and Practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 1310: Fundamentals of Criminal Law</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 2313: Correctional Systems and Practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 2328: Police Systems and Practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RELATED COURSE REQUIREMENTS</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>COSC 1301: Computer Concepts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The student must choose two classes from the following list or other SOPHOMORE level electives as approved by the advisor:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 1307: Crime in America</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 2314: Criminal Investigation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 2323: Legal Aspects of Law Enforcement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 2301: Community Resources in Corrections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>66</td>
<td></td>
</tr>
</tbody>
</table>

**CRIMINAL JUSTICE CORRECTIONS**

Program Advisor: Sarah Uselding, 356-3618 (uselding-se@actx.edu) or contact the Criminal Justice Programs, 354-6081

**CERTIFICATE OF COMPLETION**

**CRIMINAL JUSTICE LAW ENFORCEMENT**

Program Advisor: Alex Chancia  356-3680 (chancia-ae@actx.edu) or contact Criminal Justice Programs, 354-6081.

**ASSOCIATE IN APPLIED SCIENCE**

**MAJOR CODE - CJLE.AAS.CORR**

For persons wishing to pursue a career in law enforcement and includes TCLEOSE requirements for basic licensure examination. Students desiring entrance into this program must contact the Program Advisor or the Criminal Justice Programs for instructions.

**MAJOR REQUIREMENTS**

<table>
<thead>
<tr>
<th>SEMESTER HOURS</th>
<th>GENERAL EDUCATION REQUIREMENTS*</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>ENGL 1301: Freshman Composition I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 1302: Freshman Composition II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPCH*</td>
<td></td>
</tr>
<tr>
<td>Humanities/Fine Arts</td>
<td>SOCI 2319: Minority Studies</td>
<td></td>
</tr>
<tr>
<td>Mathematics/Natural Sciences</td>
<td>MATH 1333: Contemporary Mathematics (or any MATH*)</td>
<td></td>
</tr>
<tr>
<td>Social Behavioral Sciences</td>
<td>GOVT 2305: Government of the U.S.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GOVT 2306: Government of Texas and U.S.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSYC 2302: Psychology of Human Relations</td>
<td></td>
</tr>
<tr>
<td>Lifetime Fitness*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR REQUIREMENTS</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>CRIJ 1301: Introduction to Criminal Justice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 1306: Court Systems and Practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 1310: Fundamentals of Criminal Law</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 2313: Correctional Systems and Practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 2301: Community Resources in Corrections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>64</td>
<td></td>
</tr>
</tbody>
</table>

*Please see pages 44-46 for General Education Requirements and Course List  **Please see pages 9-10 for Testing Requirements for Certificate Programs
MATH 1333: Contemporary Mathematics (or any MATH*)

SOCIAL BEHAVIORAL SCIENCES

GOVT 2306: Government of Texas and U.S.

MAJOR CORE REQUIREMENTS ............................................. 15
CRIJ 1301: Introduction to Criminal Justice
CRIJ 1306: Court Systems and Practices
CRIJ 1310: Fundamentals of Criminal Law
CRIJ 2313: Correctional Systems and Practices
CRIJ 2328: Police Systems and Practices

MAJOR COURSE REQUIREMENTS .......................................24
The following classes include the Texas Commission on Law Enforcement Officers Standards and Education (TCLEOSE) approved Basic Peace Officer Academy and can only be taken as a Unit. The classes are a total of 668 clock hours and will enable students who complete all 4 classes to sit for the state licensing (TCLEOSE) exam.

CJLE 1506: Basic Peace Officer I
CJLE 1512: Basic Peace Officer II
CJLE 1518: Basic Peace Officer III
CJLE 1524: Basic Peace Officer IV
CJLE 1429: Basic Peace Officer V

RELATED COURSE REQUIREMENTS ....................................9
COSC 1301: Computer Concepts

The student must choose two classes from the following list or other Sophomore level electives as approved by the advisor:

CRIJ 1307: Crime in America
CRIJ 2323: Legal Aspects of Law Enforcement
CRIJ 2314: Criminal Investigation
CRIJ 2301: Community Resources in Corrections

TOTAL ..............................................................................66

CRIMINAL JUSTICE LAW ENFORCEMENT

Program Advisor: Alex Chancia  356-3680 (chancia-ae@actx.edu) or contact Criminal Justice Programs, 354-6081.

CERTIFICATE OF COMPLETION

Major Code - CJLE.CERT.LE
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

For persons wishing to pursue a career in law enforcement. Students will receive a certificate enabling them to sit for the State Examination by Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE) to become a Licensed Peace Officer. The hours will also apply toward an Associate of Applied Science Degree in Criminal Justice Law Enforcement. A student desiring entrance into this program must contact the Program Advisor or Criminal Justice Programs for instructions.

MAJOR REQUIREMENTS ..................................................24
The following five classes are the Texas Commission on Law Enforcement Officers Standards and Education (TCLEOSE) approved Basic Peace Officer Academy and can only be taken as a Unit. Basic Peace Officer I and II comprise the first semester; Basic Peace Officer III, IV, and V comprise the second semester. The five classes are a total of 700 clock hours and will enable students who complete all five classes to sit for the state licensing (TCLEOSE) exam.

CJLE 1506: Basic Peace Officer I
CJLE 1512: Basic Peace Officer II
CJLE 1518: Basic Peace Officer III
CJLE 1524: Basic Peace Officer IV
CJLE 1429: Basic Peace Officer V

TOTAL ..............................................................................24

DENTAL HYGIENE

Program Advisor: Donna Cleere, 354-6064 (cleere-dk@actx.edu) or contact the Allied Health Division, 354-6055

ASSOCIATE IN APPLIED SCIENCE

Major Code - DHYG.AAS

Prepares students for employment in the private office or the community dental clinic. Upon successful completion of the program, graduates are eligible to apply for the national board examination and the state licensure examination for dental hygiene.

All of the major requirement courses are to be taken in a sequential order or at the advisement of the department major advisor. A grade of C or higher is required for satisfactory completion of all courses. To continue in the program, a student may repeat a DHYG course one time and may repeat no more than two DHYG courses while enrolled in the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, drop, or unsatisfactory grade.

Students seeking admission into Dental Hygiene must file a specific program application form and complete additional admission procedures as required.

GENERAL EDUCATION REQUIREMENTS* ................................31

Communication
ENGL 1301: Freshman Composition I
SPCH 1318: Interpersonal Communications

Humanities/Fine Arts
SOCI 2319: Minority Studies

Mathematics/Natural Sciences
BIOL 2401: Human Anatomy and Physiology I
BIOL 2402: Human Anatomy and Physiology II
BIOL 2421: Microbiology
CHEM 1406: General Organic and Biological Chemistry
MATH 1333: Contemporary Mathematics or College Algebra

Social/Behavioral Sciences
PSYC 2301: General Psychology

MAJOR COURSE REQUIREMENTS ........................................41
DHYG 1207: General and Dental Nutrition
DHYG 1215: Community Dentistry
DHYG 1123: Dental Hygiene Practice
DHYG 1227: Preventive Dental Hygiene Care
DHYG 1235: Pharmacology for the Dental Hygienist
DHYG 1239: General and Oral Pathology
DHYG 1260: Clinical - Dental Hygienist I
DHYG 1261: Clinical - Dental Hygienist II
DHYG 1301: Orofacial Anatomy, Histology and Embryology
DHYG 1304: Dental Radiology
DHYG 1311: Periodontology
DHYG 1319: Dental Materials
DHYG 1431: Preclinical Dental Hygiene
DHYG 2201: Contemporary Dental Hygiene Care I
DHYG 2261: Clinical - Dental Hygienist IV

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
DHYG 2331: Contemporary Dental Hygiene Care II
DHYG 2360: Clinical - Dental Hygienist III

**TOTAL** ......................................................... 72

**DENTIST AIDE**
Program Advisor: Dana Scott, 356-3616 (scott-dc@actx.edu) or contact the Allied Health Division, 354-6055

**CERTIFICATE OF COMPLETION**
Major Code - DNTA.CERT
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

Prepares the student to assist at chairside to perform laboratory procedures; and to carry out business office duties. A grade of C or higher is required for satisfactory completion of all course work.

Students seeking admission into the Dentist Aide program must file a specific program application form and complete additional admission procedures as required.

**MAJOR COURSE REQUIREMENTS** .................................. 27
DNTA 1266: Practicum - Dental Assistant I
DNTA 1241: Dental Laboratory Procedures
DNTA 1345: Preventive Dentistry
DNTA 1249: Dental Radiology Techniques
DNTA 1251: Dental Office Management
DNTA 1301: Dental Materials
DNTA 1205: Dental Radiology
DNTA 1311: Dental Science
DNTA 1415: Chairside Assisting
DNTA 1453: Dental Assisting Applications

**RELATED REQUIRED COURSES** ............................. 9
COSC 1301: Computer Concepts
POFT 1301: Business English
SPCH 1318: Interpersonal Communications

**TOTAL** .................................................................. 36

**DENTISTRY**
(see Biology)

**DIESEL MECHANICS TECHNOLOGY**
Program Advisor: Henry Wyckoff, 335-4209 (wyckoff-ha@actx.edu) or contact the Transportation Department, 335-4370

**CERTIFICATES OF COMPLETION**
Major Code - DEMR.CERT
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

Provides hands-on computer-assisted drafting skills to assist students in technical careers of drafting. A combination of drafting disciplines specifically designed to be enhanced by use of the computer with major emphasis placed on mechanical, architectural, electrical, and engineering practices.

**MAJOR COURSE REQUIREMENTS** .......................... 33
DFTG 1305: Technical Drafting
or ENGR 1304: Engineering Graphics
DFTG 1309: Basic Computer-Aided Drafting
INDS 2313: Residential Design
DFTG 1333: Mechanical Drafting
DFTG 2319: Intermediate Computer-Aided Drafting
DFTG 1370: Microstation I
DFTG 1372: Microstation II
DFTG 2340: Solid Modeling/Design
DFTG 2332: Advanced Computer-Aided Drafting
INDS 1301: Basic Elements of Design
DFTG 2338: Final Project

**MAJOR COURSE OPTIONS** .................................. 12
Choose 5 of the following courses:
DFTG 2323: Pipe Drafting
DFTG 2321: Topographical Drafting
INDS 1345: Commercial Design
DFTG 1358: Electrical/Electronics Drafting
DFTG 2327: Landscape Drafting
DFTG 1376: 3D Rendering
DFTG 1391: Special Topics in Drafting
INDS 2317: Rendering Techniques
INDS 2330: Interior Design Building Systems
DFTG 2310: Structural Drafting
DFTG 2336: Computer-Aided Drafting Programming
DFTG 2350: Geometric Dimensioning and Tolerancing

**Elective** .............................................................. 3

**TOTAL** ............................................................. 63

*Please see pages 44-46 for General Education Requirements and Course List

**MAJOR REQUIREMENTS** ........................................ 26
DEMR 1329: Preventative Maintenance
DEMR 1406: Diesel Engine I
DEMR 1421: Power Train I
DEMR 1442: Power Train Applications I
DEMR 1449: Diesel Engine II
DEMR 2334: Advanced Diesel Tune-Up and Troubleshooting
DEMR 2432: Electronic Controls
DEMR 2348: Failure Analysis

Optional Courses:
CVOP 1105: CDL Written Skills
CVOP 1301: CDL Driving Skills

**DRAFTING**
Program Advisor: Tony Thomas, 354-6035 (thomas-tr@actx.edu) or contact Drafting, 335-4330

**ASSOCIATE IN APPLIED SCIENCE**
Major Code - DFTG.AAS

**GENERAL EDUCATION REQUIREMENTS*** .................. 15
Communications
ENGL 1301: Freshman Composition
SPCH*

Mathematics/Natural Science
MATH 1314: College Algebra

Social/Behavioral Sciences*

Humanities/Fine Arts*

**MAJOR COURSE REQUIREMENTS** ......................... 33
DFTG 1305: Technical Drafting
or ENGR 1304: Engineering Graphics
DFTG 1309: Basic Computer-Aided Drafting
INDS 2313: Residential Design
DFTG 1333: Mechanical Drafting
DFTG 2319: Intermediate Computer-Aided Drafting
DFTG 1370: Microstation I
DFTG 1372: Microstation II
DFTG 2340: Solid Modeling/Design
DFTG 2332: Advanced Computer-Aided Drafting
INDS 1301: Basic Elements of Design
DFTG 2338: Final Project

**MAJOR COURSE OPTIONS** .................................. 12
Choose 5 of the following courses:
DFTG 2323: Pipe Drafting
DFTG 2321: Topographical Drafting
INDS 1345: Commercial Design
DFTG 1358: Electrical/Electronics Drafting
DFTG 2327: Landscape Drafting
DFTG 1376: 3D Rendering
DFTG 1391: Special Topics in Drafting
INDS 2317: Rendering Techniques
INDS 2330: Interior Design Building Systems
DFTG 2310: Structural Drafting
DFTG 2336: Computer-Aided Drafting Programming
DFTG 2350: Geometric Dimensioning and Tolerancing

**Elective** .............................................................. 3

**TOTAL** ............................................................. 63

*Please see pages 9-10 for Testing Requirements for Certificate Programs
**DRAFTING**
Program Advisor: Tony Thomas, 354-6035 (thomas-tr@actx.edu) or contact Drafting, 335-4330

**CERTIFICATES OF COMPLETION**
**Major Codes - BELOW**
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

**DRAFTING TECHNICIAN**
**Major Code - DFTG.CERT.DT**
Introduces students to basic drafting techniques and procedures. Focuses on drafting in machine, architectural and CAD. Individuals in this program should have prior work experience or training in drafting or related fields.

<table>
<thead>
<tr>
<th>MAJOR REQUIREMENTS</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFTG 1309: Basic CAD Drafting</td>
<td>15</td>
</tr>
<tr>
<td>DFTG 2319: Intermediate CAD</td>
<td></td>
</tr>
<tr>
<td>DFTG 2340: Advanced CAD</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAJOR REQUIREMENTS</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2374: Integrated Biology</td>
<td></td>
</tr>
<tr>
<td>CHEM 1375: Integrated Chemistry</td>
<td></td>
</tr>
<tr>
<td>PHYS 1375: Integrated Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS 2373: Integrated Earth Science</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
</tr>
</tbody>
</table>

**EDUCATION - SECONDARY**
**ASSOCIATE OF ARTS IN TEACHING**
**EDUC.AAT.SECO**
Program Advisor: Mindy Adams, 371-5188 (adams-mr@actx.edu) or contact the Sciences and Engineering Division, 371-5091

Students seeking a Texas teacher certification in grades 8-12 in any subject area or Early Childhood-12 in any area will follow this degree plan. See the advisor for the specific elective courses required for these majors.

**GENERAL EDUCATION REQUIREMENTS**

| Communication                          | ENGL 1301: Freshman Composition I |
|                                       | ENGL 1302: Freshman Composition II |
|                                       | SPCH 1315 or SPCH 1321              |
| Social/Behavioral Sciences            | HIST 1301: History of the U.S. I   |
|                                       | HIST 1302: History of the U.S. II  |

**Humanities/Fine Arts**

| ENGL 2322, 2323, 2327, 2328, 2332, or 2333 |
| Fine Arts*                                 |

<table>
<thead>
<tr>
<th>Mathematics/Natural Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 1314 or 1324</td>
</tr>
<tr>
<td>Phys 1375: Integrated Physics</td>
</tr>
<tr>
<td>Chem 1375: Integrated Chemistry</td>
</tr>
<tr>
<td>Phys 2373: Integrated Earth Science</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lifetime Fitness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any PHED course numbered 1101-1122</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAJOR REQUIRED COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1350: Foundations of Mathematics I</td>
</tr>
<tr>
<td>MATH 1351: Foundations of Mathematics II</td>
</tr>
<tr>
<td>EDUC 1301: Introduction to the Teaching Profession</td>
</tr>
<tr>
<td>EDUC 2301: Introduction to the Special Populations</td>
</tr>
</tbody>
</table>

**EDUCATION - HIGH NEED**
Program Advisor: Mindy Adams, 371-5188 (adams-mr@actx.edu) or contact the Sciences and Engineering Division, 371-5091

Students seeking a Texas teacher certification in Early Childhood-4 Grade Bilingual, ESL; 4-8 Grade; Early Childhood-12 Grade Special Education, will follow this degree plan. See advisor for the specific elective courses required for each major.

**GENERAL EDUCATION REQUIREMENTS**

| Communication                          | ENGL 1301: Freshman Composition I |
|                                       | ENGL 1302: Freshman Composition II |
| Social/Behavioral Sciences            | HIST 1301: History of the U.S. I   |
|                                       | HIST 1302: History of the U.S. II  |

<table>
<thead>
<tr>
<th>Humanities/Fine Arts**</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2322, 2323, 2327, 2328, 2332, or 2333</td>
</tr>
<tr>
<td>Fine Arts*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mathematics/Natural Sciences**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 1314 or 1324</td>
</tr>
<tr>
<td>Phys 1375: Integrated Physics</td>
</tr>
<tr>
<td>Chem 1375: Integrated Chemistry</td>
</tr>
<tr>
<td>Phys 2373: Integrated Earth Science</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lifetime Fitness**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any PHED course numbered 1101-1122</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAJOR REQUIRED COURSES**</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 1301: Introduction to the Teaching Profession</td>
</tr>
<tr>
<td>EDUC 2301: Introduction to the Special Populations</td>
</tr>
</tbody>
</table>

**Please see pages 44-46 for General Education Requirements and Course List**

**Please see pages 9-10 for Testing Requirements for Certificate Programs**
EDUCATION - GENERAL  .................................................................62

ASSOCIATE OF ARTS IN TEACHING  ......................................6

EDUC.AAT.GENS  ..........................................................................

Program Advisor: Mindy Adams, 371-5188 (adams-
-371-5091)
or contact the Sciences and Engineering
-371-5091)

Students seeking a Texas teacher certification in grades
Early Childhood-4th Generalist, will follow this degree plan.
See the advisor for the specific elective courses for this
majors.

SEMESTER HOURS  .....................................................................

GENERAL EDUCATION REQUIREMENTS* .........................43

Communication

ENG 1301: Freshman Composition I  ......................................
ENG 1302: Freshman Composition II  .....................................
SPCH 1315 or SPCH 1321  .......................................................

Social/Behavioral Sciences

HIST 1301: History of the U.S. I  ............................................
HIST 1302: History of the U.S. II  ..........................................
GOVT 2305: Government of the U.S.  ...................................
GOVT 2306: Government of Texas  ......................................
ANTH 2351, ECON 2301, GEG 1302, PSYC 2301,
or SOCI 1301  ........................................................................

Humanities/Fine Arts

ENG 2322, 2323, 2327, 2328, 2332, or 2333  ..............

Mathematics/Natural Sciences

Math 1314 or 1324  ...............................................................
PHYS 1375: Integrated Physics  ............................................
CHEM 1375: Integrated Chemistry  ......................................
PHYS 2373: Integrated Earth Science  ...............................

Lifetime Fitness  ........................................................................

Any PHED course numbered 1101-1122  .....................

MAJOR REQUIRED COURSES .............................................20

MATH 1350: Foundations of Mathematics I  ......................
MATH 1351: Foundations of Mathematics II  .....................
TECA 1303: Family, School and Community  ...............
TECA 1311: Educating Young Children  ..........................
TECA 1354: Child Growth and Development  ..................
BIOL 2374: Integrated Biology  ............................................

TOTAL ................................................................................74

ELECTRONIC SYSTEMS TECHNOLOGY  .................................66

Program Advisor: Jack B. Stanley, 371-5274 (stanley-
-371-5091)
or contact the Sciences and Engineering Division.

ASSOCIATE IN APPLIED SCIENCE

Major Code - CETT.AAS.EST  ......................................................

Through this program the student will become competent in
Safety Practices, Laws and Theories of Electricity, Test
Equipment, Electronic Servicing, Digital Troubleshooting,
Microprocessor Applications, in addition to a chosen area of
specialization.

SEMESTER HOURS  .....................................................................

GENERAL EDUCATION REQUIREMENTS* .........................18

Communication

ENG 1301: Freshman Composition I  .................................
SPCH* ..............................................................................

Humanities/Fine Arts*

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
maintenance and installation of electronic systems.

MAJOR REQUIREMENTS .................................................. 30
CETT 1403: DC Circuits
CETT 1405: AC Circuits
CETT 1425: Digital Fundamentals
CETT 1329: Solid State Devices
CETT 1341: Solid State Circuits
CETT 1345: Microprocessors
CPMT 1349: Computer Networking Technology
LOTT 1301: Introduction to Fiber Optics
QCTC 1303: Quality Control
TOTAL ................................................................. 30

MICROCOMPUTER SERVICE SPECIALIST
Major Code - CETT.CERT.MICR
Prepare students to be a troubleshooting technician in the microcomputer repair field. Emphasis on practical, hands-on training. Work experience, equivalent post secondary education, or a combination thereof may substitute for all or part of the certificate in General Electronics Systems Assistant as approved by the department chair.

MAJOR REQUIREMENTS .................................................. 41
CETT 1403: DC Circuits
CETT 1425: Digital Fundamentals
CETT 1329: Solid State Devices
CETT 1341: Solid State Circuits
CETT 1345: Microprocessors
CETT 2335: Advanced Microprocessors
CPMT 1311: Introduction to Computer Maintenance
CPMT 1345: Computer Systems Maintenance
CPMT 1347: Computer System Peripherals
CPMT 1349: Computer Networking Technology
CPMT 2333: Computer Integration
CPMT 2337: Microcomputer Interfacing
LOTT 1301: Introduction to Fiber Optics
TOTAL ................................................................. 41

ELECTRONICS APPLICATION SPECIALIST
Major Code - EECT.CERT.EAS
This certificate allows the student to take courses for a more broad based electronics program.

MAJOR REQUIREMENTS .................................................. 40
CETT 1403: DC Circuits
CETT 1405: AC Circuits
CETT 1425: Digital Fundamentals
CETT 1329: Solid State Devices
CETT 1345: Microprocessors
CETT 2335: Advanced Microprocessors
CPMT 1311: Introduction to Computer Maintenance
CPMT 1345: Computer Systems Maintenance
CPMT 1347: Computer System Peripherals
CPMT 1349: Computer Networking Technology
ETCC 1346: CCNA IV: WAN Technologies
LOTT 1301: Introduction to Fiber Optics
TOTAL ................................................................. 40

ASSOCIATE IN APPLIED SCIENCE
Major Code - CETT.AAS.NT
Through this program the student will become competent in automating access to the network, corporate security strategies, and handling routine hardware maintenance. Student may choose one of three speciality areas: Cisco, Microsoft NT, or General Networking.

GENERAL EDUCATION REQUIREMENTS* ...................... 18
Communication
ENGL 1301: Freshman Composition I
SPCH*
Humanities/Fine Arts*
Mathematics/Natural Sciences
MATH 1314: College Algebra
Natural Science* Elective
Social and Behavioral Sciences
Social/Behavioral Sciences* Elective

MAJOR REQUIREMENTS .................................................. 38
CETT 1403: DC Circuits
CETT 1425: Digital Fundamentals CIS Elective
COSC 1301: Computer Concepts
CPMT 1343: Computer Architecture
CPMT 1347: Computer Systems Peripherals
CPMT 1349: Computer Networking Technology
CPMT 2349: Advanced Computer Networking Technology
ITCC 1302: CCNA I: Networking Basics
ITSY 1342: Information Technology Security
LOTT 1301: Introduction to Fiber Optics
QCTC 1303: Quality Control

MAJOR OPTIONS ......................................................... 9
The student must choose one of the following specialties:
Cisco Specialist
ITCC 1306: CCNA II: Router and Routing Basics
ITCC 1342: CCNA III: Switching Basic and Intermediate Routing
ITCC 1346: CCNA IV: WAN Technologies
General Networking Specialist
ITCC 1306: CCNA II: Router and Routing Basics
ITNW 2301: Administering Servers
ITNW 2305: Network Administration
Network Security
ITSY 2301: Firewalls and Network Security
ITSY 2341: Security Management Practices
ITNW 2353: Supporting Proxy Services
NT Specialist
CPMT 2337: Microcomputer Interfacing
ITNW 2301: Administering Servers
ITNW 1343: Networking Technologies
TOTAL ................................................................. 65

ELECTRONICS SYSTEMS TECHNOLOGY
NETWORKING TECHNOLOGY OPTION
Program Advisor: Jack Stanley, 371-5274 (stanley-jb@actx.edu) or contact the Sciences and Engineering Division, 371-5091

CERTIFICATE OF COMPLETION
Major Codes - BELOW
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
NETWORKING SPECIALIST CERTIFICATE
Major Code - CETT.CERT.NET

Networking Specialist provides on-site administrative support for networking users in a variety of work environments. Typical job tasks include automating access to the network, implementing corporate security strategies, customizing and optimizing the software, and handling routine software/hardware maintenance. Students may earn one of the three specialties: Cisco, General Networking, or Microsoft NT.

MAJOR REQUIREMENTS ...........................................41
CETT 1403: DC Circuits
CETT 1425: Digital Fundamentals
CPMT 1343: Computer Architecture
CPMT 1347: Computer Systems Peripherals
CPMT 1349: Computer Networking Technology
CPMT 2349: Advanced Computer Networking Technology
ITCC 1302: CCNA I: Networking Basics
ITSY 1342: Information Technology Security
LOTT 1301: Introduction to Fiber Optics
QCTC 1303: Quality Control

The student must choose one of the following specialties:
Cisco Specialist
ITCC 1306: CCNA II: Router and Routing Basics
ITCC 1342: CCNA III: Switching Basic and Intermediate Routing
ITCC 1346: Cisco IV: WAN Technologies

General Networking Specialist
ITCC 1306: CCNA II: Router and Routing Basics
ITNW 2301: Administering Servers
ITNW 2305: Networking Administration

Network Security
ITSY 2301: CCNA 2: Router and Routing Basics
ITSY 2341: Security Management Practices
ITNW 2353: Supporting Proxy Services

NT Specialist
CPMT 2337: Microcomputer Interfacing
ITNW 2301: Administering Servers
ITNW 1343: Network Technologies

TOTAL .................................................................41

68-71

ELECTRONICS ENGINEERING TECHNOLOGY SEMICONDUCTOR MANUFACTURING TECHNOLOGY OPTION

Program Advisor: Contact the Sciences and Engineering Division, 371-5091

ASSOCIATE IN APPLIED SCIENCE
Major Code - EECT.AAS.EET

Provides a strong foundation in electronics. Students may specialize in one of three areas: Biomedical, Computer, or General Electronics. Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, Maryland, 21202, phone (410) 347-7700.

GENERAL EDUCATION REQUIREMENTS* ........................19
Communications
ENGL 1301: Freshman Composition I
SPCH 1318: Interpersonal Communication
Humanities/Fine Arts*
Mathematics/Natural Sciences

*Please see pages 44-46 for General Education Requirements and Course List

MAJOR REQUIREMENTS ...........................................41
CETT 1403: DC Circuits
CETT 1405: AC Circuits
CETT 1425: Digital Fundamentals
CETT 1329: Solid State Devices
CETT 1345: Microprocessors
CETT 2248/2249: Research and Project Design 1 and 2
CETT 2439: Amplifier Analysis
EECT 2439: Communications Circuits
MATH 1316: Trigonometry

RELATED REQUIRED COURSES ..................................16-19
MATH 1348: Analytic Geometry
PHYS 1302/1102: College Physics II/Lab II

The student must choose one of the following specialties:
Biomedical Specialist
BIOM 2335/2339: Physiological Instruments I and II
POFM 1313: Medical Terminology I
POFM 2323: Medical Terminology II

Computer Specialist
CETT 2335: Advanced Microprocessors
ENGR 1371: Introductory Software Development
INTC 2336: Distributed Control and Programmable Logic

General Electronics Specialist
DFTG 1358: Electrical/Electronics Drafting
INTC 2336: Distributed Control and Programmable Logic
PSYC 2302: Psychology of Human Relations

TOTAL .................................................................68-71

ELECTRONICS ENGINEERING TECHNOLOGY SEMICONDUCTOR MANUFACTURING TECHNOLOGY OPTION

Program Advisor: Contact the Sciences and Engineering Division, 371-5091

ASSOCIATE IN APPLIED SCIENCE
Major Code - EECT.AAS.EET

Provides a strong foundation in electronics. Students may specialize in one of three areas: Biomedical, Computer, or General Electronics. Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, Maryland, 21202, phone (410) 347-7700.

GENERAL EDUCATION REQUIREMENTS* ........................19
Communications
ENGL 1301: Freshman Composition I
SPCH 1318: Interpersonal Communication
Humanities/Fine Arts*
Mathematics/Natural Sciences

*Please see pages 44-46 for General Education Requirements and Course List

MAJOR REQUIREMENTS ...........................................41
CETT 1403: DC Circuits
CETT 1405: AC Circuits
CETT 1425: Digital Fundamentals
CETT 1329: Solid State Devices
CETT 1345: Microprocessors
CETT 2248/2249: Research and Project Design 1 and 2
CETT 2439: Amplifier Analysis
EECT 2439: Communications Circuits
MATH 1316: Trigonometry

RELATED REQUIRED COURSES ..................................16-19
MATH 1348: Analytic Geometry
PHYS 1302/1102: College Physics II/Lab II

The student must choose one of the following specialties:
Biomedical Specialist
BIOM 2335/2339: Physiological Instruments I and II
POFM 1313: Medical Terminology I
POFM 2323: Medical Terminology II

Computer Specialist
CETT 2335: Advanced Microprocessors
ENGR 1371: Introductory Software Development
INTC 2336: Distributed Control and Programmable Logic

General Electronics Specialist
DFTG 1358: Electrical/Electronics Drafting
INTC 2336: Distributed Control and Programmable Logic
PSYC 2302: Psychology of Human Relations

TOTAL .................................................................68-71

ELECTRONICS ENGINEERING TECHNOLOGY SEMICONDUCTOR MANUFACTURING TECHNOLOGY OPTION

Program Advisor: Contact the Sciences and Engineering Division, 371-5091

ASSOCIATE IN APPLIED SCIENCE
Major Code - EECT.AAS.EET

Provides a strong foundation in electronics. Students may specialize in one of three areas: Biomedical, Computer, or General Electronics. Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, Maryland, 21202, phone (410) 347-7700.

GENERAL EDUCATION REQUIREMENTS* ........................19
Communications
ENGL 1301: Freshman Composition I
SPCH 1318: Interpersonal Communication
Humanities/Fine Arts*
Mathematics/Natural Sciences

*Please see pages 44-46 for General Education Requirements and Course List

MAJOR REQUIREMENTS ...........................................41
CETT 1403: DC Circuits
CETT 1405: AC Circuits
CETT 1425: Digital Fundamentals
CETT 1329: Solid State Devices
CETT 1345: Microprocessors
CETT 2248/2249: Research and Project Design 1 and 2
CETT 2439: Amplifier Analysis
EECT 2439: Communications Circuits
MATH 1316: Trigonometry

RELATED REQUIRED COURSES ..................................16-19
MATH 1348: Analytic Geometry
PHYS 1302/1102: College Physics II/Lab II

The student must choose one of the following specialties:
Biomedical Specialist
BIOM 2335/2339: Physiological Instruments I and II
POFM 1313: Medical Terminology I
POFM 2323: Medical Terminology II

Computer Specialist
CETT 2335: Advanced Microprocessors
ENGR 1371: Introductory Software Development
INTC 2336: Distributed Control and Programmable Logic

General Electronics Specialist
DFTG 1358: Electrical/Electronics Drafting
INTC 2336: Distributed Control and Programmable Logic
PSYC 2302: Psychology of Human Relations

TOTAL .................................................................68-71
EMERGENCY MEDICAL SERVICES PROFESSIONS

Program Advisor: John Smoot, 354-6077 (smoot-jc@actx.edu) or contact the Allied Health Division, 354-6055

CERTIFICATE OF COMPLETION
Major Code - EMSP.CERT

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

This program is designed for students who wish to earn a Certificate of Completion in addition to completing the academic, clinical, and field internship requirements for certification through the Texas Department of Health as a Paramedic. Successful completion also meets eligibility requirements for the National Registry of EMTs Paramedic examination process. Successful completion of selected course work satisfies the academic, clinical, and field internship requirements for prospective certification with the National Registry of EMTs as an Emergency Medical Technician (EMT) Basic, or EMT Intermediate.

A grade of C or higher is required for satisfactory completion of all courses in this curriculum.

EMSP 1501 and EMSP 1163 are open-admission courses; satisfying admission requirements to Amarillo College will satisfy admission requirements to these courses. A student seeking admission into any EMSP course other than EMSP 1501 and EMSP 1163 must file a specific program application form and/or complete additional course/program admission requirements prior to course enrollment.

MAJOR COURSE REQUIREMENTS ...................... 40

EMSP 1147: Pediatric Advanced Life Support
EMSP 1149: Pre-Hospital Trauma Life Support
EMSP 1163: Clinical - Emergency Medical Technology/Technician
EMSP 1438: Introduction to Advanced Practice
EMSP 1455: Trauma Management
EMSP 1456: Patient Assessment and Airway Management
EMSP 1501: Emergency Medical Technician - Basic
EMSP 2135: Advanced Cardiac Life Support
EMSP 2266: Practicum - Field Experience I
EMSP 2267: Practicum - Field Experience II
EMSP 2430: Special Populations
EMSP 2434: Medical Emergencies
EMSP 2444: Cardiology
EMSP 2348: Emergency Pharmacology

RELATED REQUIRED COURSES ...................... 11

Mathematics/Natural Sciences
MATH 1333: Contemporary Mathematics (or any MATH)

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
BIOL 2401: Human Anatomy and Physiology I
BIOL 2402: Human Anatomy and Physiology II
TOTAL .................................................................51

ENGINEERING
Program Advisor: Dr. Kathryn Wetzel, 371-5097 (wetzel-kc@actx.edu) or Chairman, Sciences and Engineering Division, 371-5091
ASSOCIATE IN SCIENCE
Major Code - ENGR.AS.GEN
Provides basic courses for the first two years of a four or five-year curriculum leading to a Bachelor of Science degree. Designed to accommodate most specialties in engineering. Credits generally transfer to an engineering college. #MATH 2413: 3 hours satisfy General Education Requirements; additional hour will satisfy engineering major transfer to four-year institutions.

GENERAL EDUCATION REQUIREMENTS* ...............42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1321: Business and Professional Speaking
Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective
Humanities/Fine Arts
Humanities*
Fine Arts*
Mathematics/Natural Sciences
MATH 2413: Calculus I
PHYS 2425: Principles of Physics I
PHYS 2426: Principles of Physics II
MAJOR COURSE REQUIREMENTS .......................18
MATH 2414/2415: Calculus II and III
MATH 2320: Differential Equations
ENGR 2301: Engineering Mechanics I*
CHEM 1311/1111: Principles of Chemistry I/Lab
RECOMMENDED COURSES .................................6
Student will be advised for other courses based on the university to which they plan to transfer.
TOTAL .................................................................66
Optional Courses:
ENGL 2311: Technical Writing
ENGR 1304: Engineering Graphics
ENGR 1307: Surveying
ENGR 2302: Engineering Mechanics II*
ENGR 2405: Electrical Circuits
COSC 1436: Programming Fundamentals I
COSC 1437: Programming Fundamentals II
COSC 1317: Computer Programming for Engineers and Scientists
GEOL 1303/1103: Physical Geology and Lab
GEOL 1304/1104: Historical Geology and Lab
CHEM 1312/1112: Principles of Chemistry II/Lab
CHEM 2323/2223: Organic Chemistry I/Lab
CHEM 2325/2225: Organic Chemistry II/Lab
MATH 2318: Linear Algebra
1 Consult with the program advisor prior to enrollment in this course.

ENGINEERING COMPUTER SCIENCE
Program Advisor: Mark Usnick, 371-5239 (usnick-mc@actx.edu) or contact the Sciences and Engineering Division, 371-5091
ASSOCIATE IN SCIENCE
Major Code - ENGR.AS.COMPSC
Provides the first two years of a four year Bachelor of Science degree in computer science, software engineering, or computer engineering. #MATH 2413: 3 hours satisfy General Education Requirements; additional hour will satisfy engineering computer science major transfer to four-year institutions.

GENERAL EDUCATION REQUIREMENTS* ................39
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1321: Business and Professional Speaking
Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective
Humanities/Fine Arts
Humanities*
Mathematics/Natural Sciences
MATH 2413: Calculus I
PHYS 2425: Principles of Physics I
PHYS 2426: Principles of Physics II
MAJOR COURSE REQUIREMENTS .........................27
MATH 2318: Linear Algebra
................................................................................
or
MATH 2305: Discrete Math

MATH 2320: Differential Equations
MATH 2414: Calculus II
MATH 2415: Calculus III
COSC 1436: Programming Fundamentals I
COSC 1437: Programming Fundamentals II
COSC 2436: Programming Fundamentals III
COSC 2425: Computer Organization and Assembly Language Programming
TOTAL .....................................................................66
Student will be advised for other courses based on the university to which they plan to transfer.
Optional courses:
MATH 2320: Differential Equations
CETT 1425: Digital Fundamentals
ENGR 2405: Electrical Circuits

ENGINEERING TECHNOLOGY
Program Advisor: Dr. Kathryn Wetzel, 371-5097 (wetzel-kc@actx.edu) or Chairman, the Sciences and Engineering Division, 371-5091
ASSOCIATE IN SCIENCE
Major Code - ENGR.AS.TECH
Provides basic courses for the first two years of a four year curriculum leading to a degree of Bachelor of Science in some branch of engineering technology as offered by many engineering colleges.

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
GENERAL EDUCATION REQUIREMENTS* ..................42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1321: Business and Professional Speaking
Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective
Humanities/Fine Arts
Humanities*
Fine Arts*
Mathematics/Natural Sciences
MATH 1348: Analytic Geometry
PHYS 1301/1101: College Physics I/Lab
PHYS 1302/1102: College Physics II/Lab
Lifetime Fitness
Any PHED course numbered 1101-1122
MAJOR COURSE REQUIREMENTS .........................11
MATH 2413: Calculus I
MATH 2414: Calculus II
ENGR 1304: Engineering Graphics
RECOMMENDED COURSES ...............................13
Students will be advised of other courses based on the university to which they plan to transfer
TOTAL ................................................................66
Optional courses:
COSC 1317: Computer Programming for Engineers and Scientists
ENGL 2311: Technical Writing
ENGR 2301: Engineering Mechanics I
ENGR 1307: Surveying
GEOL 1303/1103: Physical Geology and Lab
ENGR 2405: Electrical Circuits
CHEM 1311/1111: Principles of Chemistry I and Lab
ENGLISH
Program Advisor: Margie Waguespack, 371-5185 (waguespack-mc@actx.edu) or Dwight Huber, 371-5180 (huber-dw@actx.edu) or contact the Language, Communication, and Fine Arts Division, 371-5267
ASSOCIATE IN ARTS
Major Code - ENGL.AA
GENERAL EDUCATION REQUIREMENTS* ..............42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1315: Public Speaking
Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective
Humanities/Fine Arts
Humanities*  
ENGL 2322: Masterworks of English Literature
Fine Arts*
Mathematics/Natural Sciences
MATH
Natural Sciences*
Lifetime Fitness
Any PHED course numbered 1101-1122
MAJOR COURSE REQUIREMENTS .........................9-11
Literature course* in addition to ENGL 2322
Modern Language (French, German or Spanish)
RECOMMENDED COURSES ...............................9-11
Students will be advised for other courses based on the university to which they plan to transfer
TOTAL ................................................................62
ENVIRONMENTAL HEALTH TECHNOLOGY
(See Safety and Environmental Technology)
FIRE PROTECTION TECHNOLOGY
Program Advisor: Jim Clements, 335-4204 (clements-jf@actx.edu) or contact the Fire Protection Technology Department, 335-4274
ASSOCIATE IN APPLIED SCIENCE
Major Code - FIRS.AAS
This is a two-year program leading to an associate degree in applied science. The program is designed for students interested in a career in the fire protection field, either as a professional firefighter or as a fire protection technician in industry. The courses will aid the professional firefighter in achieving promotion and advancement within his/her profession. Volunteer firefighter will find the courses beneficial in upgrading their service to the community.
Licensed firefighters may be awarded an equivalent of 24 semester hours credit for completion of an approved Texas Commission on Fire Protection Academy. (See courses with #)
GENERAL EDUCATION REQUIREMENTS* ..............21-22
Communications
ENGL 1301: Freshman Composition I
SPCH*
Humanities/Fine Arts*
Mathematics/Natural Sciences
MATH*
CHEM 1305: Introductory Chemistry I and CHEM 1419: Introductory Organic Chemistry
or ........................................................................
CHEM 1311: Principles of Chemistry I and CHEM 1312: Principles of Chemistry II
Social/Behavioral Science
GOVT 2306: Government of Texas
MAJOR COURSE REQUIREMENTS .........................45
FIRT 1309: Fire Administration I
FIRT 1331: Firefighting Strategies and Tactics I
FIRT 1319: Firefighter Health and Safety
FIRT 1349: Fire Administration II
FIRT 1329: Building Codes and Construction
EMS 1501: Emergency Medical Technician - Basic
EMS 1163: Clinical - Emergency Medical Technology/Technician
#FIRS 1301: Firefighter Certification I
#FIRS 1407: Firefighter Certification II
#FIRS 1413: Firefighter Certification III

*Please see pages 44-46 for General Education Requirements and Course List  
**Please see pages 9-10 for Testing Requirements for Certificate Programs
#FIRS 1319: Firefighter Certification IV  
#FIRS 1323: Firefighter Certification V  
#FIRS 1329: Firefighter Certification VI  
#FIRS 1433: Firefighter Certification VII  

**TOTAL ......................................................... 66-67**

Optional courses:  
Any course listed under “Fire Protection Technology” in course descriptions.

### FIRE PROTECTION - BASIC FIREFIGHTER

Program Advisor: Jim Clements, 335-4204 (clements-jf@actx.edu) or contact the Fire Protection Technology Department, 335-4274  

**CERTIFICATE OF COMPLETION**  
**Major Code - FIRS.CERT**  

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.  

Students seeking to enter this program must fulfill special admission requirements including diagnostic testing. Consult with the program advisor.  

The program will prepare students to become certifiable as Basic Firefighters in the State of Texas. Volunteer firefighter will find the courses beneficial in upgrading their service to the community.  

**MAJOR COURSE REQUIREMENTS ........................................... 31**  
FIRS 1171: Firefighter Orientation  
FIRS 1301: Firefighter Certification I  
FIRS 1407: Firefighter Certification II  
FIRS 1413: Firefighter Certification III  
FIRS 1319: Firefighter Certification IV  
FIRS 1323: Firefighter Certification V  
FIRS 1329: Firefighter Certification VI  
FIRS 1433: Firefighter Certification VII  
EMSP 1501: Emergency Medical Technician - Basic  
EMSP 1163: Clinical - Emergency Medical Technology/Technician  

**TOTAL .......................................................... 31**

### FORENSIC SCIENCE

Program Advisor: Dan Porter, 371-5384 (porter-da@actx.edu) and Toni Brasher (brasher-tb@actx.edu) or contact the Criminal Justice Department, 354-6081  

**ASSOCIATE IN SCIENCE**  
**Major Code - FORS.AS**  

The General Studies major provides flexibility to create a customized degree program for which no other major at Amarillo College meets academic, occupational, or personal development needs. The General Studies degree can be individually designed to enhance workplace skills, to meet specific transfer requirements of senior institutions, and/or to provide a broad spectrum of educational experiences for those who are undecided about a major field of study. Students should consult with a counselor in the Advising and Counseling Center for course advisement.  

**SEMESTER HOURS**  

**GENERAL EDUCATION REQUIREMENTS* ..................................... 42**  
**Communications**  
ENGL 1301: Freshman Composition I  
ENGL 1302: Freshman Composition II  
Speech Communication elective (SPCH 1315)  

**Social/Behavioral Sciences**  
HIST 1301: History of the United States  
HIST 1302: Freshman Composition II  
GOVT 2305: Government of the US  
GOVT 2306: Government of TX and the US  
PSYC 2301: General Psychology  

**Humanities/Fine Arts**  
ARTS 2356: Fundamentals of Photography  

**ELECTIVES ................................................................. 20**  
It is suggested that these electives be 1) chosen to meet individual needs, or 2) chosen from the specific major of the college or university to which a student may transfer. It is recommended that students work closely with an advisor to determine appropriate classes.  

**TOTAL ................................................................. 62**
Please see pages 44-46 for General Education Requirements and Course List

*Please see pages 9-10 for Testing Requirements for Certificate Programs
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1315: Public Speaking

Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
PSYC 2308: Child Psychology

Humanities/Fine Arts
Humanities
ENGL 2322: Masterworks of English Literature
Fine Arts*

Mathematics/Natural Sciences
MATH*
Natural Sciences*

Lifetime Fitness
Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS .................................. 19-20
TECA 1303: Family and the Community
TECA 1311: Introduction to Early Childhood
TECA 1318: Nutrition, Health, and Safety
TECA 1354: Child Growth and Development
HECO 1322: Principles of Nutrition

One Course from the following:
CDEC 1319: Child Guidance
CDEC 1321: Infant and Toddler
CDEC 1358: Creative Arts for Early Childhood
CDEC 1359: Children with Special Needs

RECOMMENDED COURSE ........................................... 3
Major advisor will assist in the selection of appropriate courses to fit your senior institution. (Must be sophomore level or course requiring prerequisites.)

TOTAL ................................................................. 64-65

TECA - Texas Early Childhood Articulation academic transfer course that will partially satisfy the first two-year requirements of a Child Development/Early Childhood baccalaureate degree at any Texas public university.

INDUSTRIAL MAINTENANCE TECHNOLOGY
Program Advisor: Kim Hays, 335-4366 (hays-kt@actx.edu) or contact the Manufacturing Technologies Department, 335-4390

ASSOCIATE IN APPLIED SCIENCE
Major Code - IMRT.AAS

Industrial Maintenance Technicians operate, troubleshoot, maintain, and service industrial and commercial equipment and facilities. Students choose an area of specialization which includes Electromechanical and Heating, Air Conditioning, and Refrigeration.

GENERAL EDUCATION REQUIREMENTS* .................. 15
Communications
ENGL 1301: Freshman Composition I
SPCH*
Social/Behavioral Science*
Humanities/Fine Arts*
Mathematics/Natural Sciences
MATH 1333: Contemporary Mathematics (or any MATH*)

MAJOR COURSE REQUIREMENTS ......................... 27
IEIR 1306: Electric Motors
IEIR 1310: Motor Controls
IEIR 1312: Distribution Systems
IEIR 1343: Industrial Equipment Maintenance
INMT 1305: Introduction to Industrial Maintenance
INMT 2301: Machinery Installation
ELPT 1311: Basic Electrical Theory
ENTC 1349: Reliability and Maintainability
EPCT 1307: Intro to Environmental Safety and Health

MAJOR OPTIONS ................................................. 21
The student must choose one of the following specialties:

Electromechanical Technician ......................... 21
This curriculum provides a specialized program of study to prepare an individual for entry level positions with the skills necessary to install, operate, troubleshoot and maintain electromechanical equipment and systems.
IMT 2345: Industrial Troubleshooting
INMT 2303: Pumps, Compressors & Mechanical Drives
ELMT 2341: Electromechanical System
ELMT 1301: Basic Programmable Logic Controllers
ELMT 1305: Basic Fluid Power
ELMT 2337: Electronic Troubleshooting, Service and Repair
ENTC 2320: Thermography and Vibration Analysis

Heating, Air Conditioning, and Refrigeration ........ 21
This curriculum provides a specialized program of study to prepare an individual for entry level positions with the skills necessary to install, operate, troubleshoot and maintain commercial and industrial refrigeration and air conditioning systems.
HART 1307: Refrigeration Principles
HART 1341: Residential Air Conditioning
HART 1345: Gas and Electric Heating
HART 2342: Commercial Refrigeration
HART 2345: Air Conditioning Systems Design
ELMT 1301: Programmable Logic Controllers
SEST 1341: Boilers-Operations; Installations and Maintenance

TOTAL ................................................................. 63
Optional Courses:
ELMT 1391: Special Topics in Electromechanical Technology/Technician
ELMT 2380: Cooperative Education-Electromechanical Technology/Technician

INDUSTRIAL MAINTENANCE TECHNOLOGY
Program Advisor: Kim Hays, 335-4366 (hays-kt@actx.edu) or contact the Industrial and Manufacturing Technologies Department, 335-4390

CERTIFICATES OF COMPLETION
Major Code - BELOW
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

INDUSTRIAL MAINTENANCE TECHNOLOGY
Program Advisor: Kim Hays, 335-4366 (hays-kt@actx.edu) or contact the Industrial and Manufacturing Technologies Department, 335-4390

SEMINER HOURS

MAJOR COURSE REQUIREMENTS ......................... 33
ELPT 1311: Basic Electrical Theory

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
ELMT 1301: Programmable Logic Controllers
ENTC 1349: Reliability and Maintainability
EPCT 1307: Intro to Environmental Safety and Health
INMT 1305: Introduction to Industrial Maintenance
INMT 2301: Machinery Installation
IEIR 1343: Industrial Equipment Maintenance
IEIR 1306: Electric Motors
IEIR 1310: Motor Controls
IEIR 1312: Distribution Systems
SEST 1341: Boilers-Operations; Installation, & Maintenance

TOTAL ................................................................. 33

ELECTROMECHANICAL
Major Code - IMRT.CERT.ELMT

Prepares individuals with the necessary skills to install, operate, troubleshoot and maintain electromechanical equipment and systems.

MAJOR COURSE REQUIREMENTS .................................... 42

INMT 1305: Introduction to Industrial Maintenance
INMT 2303: Pumps, Compressors, & Mechanical Drives
ELMT 2341: Electromechanical Systems
ENTC 2320: Thermography & Vibrations
ELMT 1301: Basic Programmable Logic Controllers
ELMT 1305: Basic Fluid Power
ENTC 1349: Reliability and Maintainability
ELPT 1311: Basic Electrical Theory
EPCT 1307: Intro to Environmental Safety and Health
IEIR 1306: Electric Motors
IEIR 1310: Motor Controls
IEIR 1312: Distribution Systems
IEIR 1343: Industrial Equipment Maintenance
INMT 2301: Machinery Installation

TOTAL ................................................................. 42

HEATING, AIR CONDITIONING, AND REFRIGERATION
Major Code - IMRT.CERT.HART

Prepares individuals with the necessary skills to install, operate, troubleshoot and maintain commercial and industrial refrigeration and air conditioning systems.

MAJOR COURSE REQUIREMENTS .................................... 42

ELPT 1311: Basic Electrical Theory
ENTC 1349: Reliability and Maintainability
EPCT 1307: Intro to Environmental Safety and Health
HART 1341: Residential Air Conditioning
HART 2342: Commercial Refrigeration
HART 1345: Gas and Electric Heating
HART 1307: Refrigeration Principles
HART 2345: Air Conditioning Systems Design
IEIR 1306: Electric Motors
IEIR 1310: Motor Controls
IEIR 1312: Distribution Systems
IEIR 1343: Industrial Equipment Maintenance
INMT 1305: Introduction to Industrial Maintenance
INMT 2301: Machinery Installation

TOTAL ................................................................. 42

Optional Courses:
ELMT 1391: Special Topics in Electromechanical Technology/Technician
ELMT 2380: Cooperative Education-Electromechanical Technology/Technician

INSTRUMENT and CONTROL TECHNOLOGY

Program Advisor: Jack Stanley, 371-5274 (stanley-jb@actx.edu) or contact Electronics Technology, 371-5972

ASSOCIATE IN APPLIED SCIENCE
Major Code - CETT.AAS

Instrumentation is the applied science of measuring and controlling variables in the petroleum, chemical, power generating, and manufacturing industries. Due to the rapid increase in the industrial use of instrumentation devices, there is a great demand for technicians.

GENERAL EDUCATION REQUIREMENTS* .......................... 18

Communication

ENGL 1301: Freshman Composition I
SPCH*

Humanities/Fine Arts*
Math 1314: College Algebra
Natural Sciences*

Social/Behavioral Sciences*
Social/Behavioral Sciences* Elective

MAJOR REQUIREMENTS .................................................. 18

CETT 1403: DC Circuits
CETT 1405: AC Circuits
CETT 1425: Digital Fundamentals
CETT 1345: Microprocessors
INTC 1305: Introduction to Electronic Instrumentation

MAJOR OPTIONS .......................................................... 27

The student must choose one of the following specialties:

Instrument and Control Technology .................................. 27

This curriculum provides a specialized program of study to prepare an individual for entry level positions with the skills necessary to install, operate, troubleshoot and maintain instruments and controls in a variety of industrial settings.

INTC 1301: Principles of Industrial Measurements
INTC 1309: Critique of Instrument and Control
INTC 1312: Introduction to Instrumentation and Safety Technology

Telecommunication Technology ........................................ 27

This program is designed to provide a student with a solid foundation in electronics and the field of communications by computer, voice and video that are utilized in industrial workplaces. The students will receive training to prepare them for entry level positions in manufacturing or commercial service settings.

CETT 1329: Solid State Devices
CETT 1341: Solid State Circuits
CSIR 1355: Industry Certification (F.C.C.)
EECT 2433: Telephone Systems
EECT 2435: Telecommunications
EECT 2439: Communications Circuits
EECT 1380: Cooperative Education-Electrical, Electronic and Communications Engineering Technology/

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
**INSTRUMENT and CONTROL TECHNOLOGY**

Program Advisor: Jack Stanley, 371-5274 (stanley-jb@actx.edu) or contact Electronic Technology, 371-5972

**CERTIFICATES OF COMPLETION**

**Major Code - BELOW**

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

**CATHODIC PROTECTION TECHNICIAN**

**Major Code - INTC.CERT.CATH**

This program is designed to provide a student with a solid foundation in the internal, external, and atmospheric corrosion related to various industry applications. An emphasis on regulatory compliance in Cathodic Protection is stressed.

**MAJOR REQUIREMENTS**

- CETT 1403: DC Circuits
- CETT 1425: Digital Fundamentals
- METL 1313: Introduction to Corrosion
- METL 2301: Internal Corrosion Control
- METL 2305: Atmospheric Corrosion Control
- METL 2341: Cathodic Protection

**TOTAL**

20 SEMESTER HOURS

**ELECTRONIC INSTRUMENT and CONTROL TECHNICIAN**

**Major Code - INTC.CERT.EICT**

Instrumentation that focuses on electronic equipment. Deals with the calibration and installation of equipment with a general understanding of troubleshooting techniques.

**MAJOR REQUIREMENTS**

- CETT 1403: DC Circuits
- CETT 1405: AC Circuits
- CETT 1425: Digital Fundamentals
- CETT 1345: Microprocessors
- INTC 1301: Principles of Industrial Measurements
- INTC 1305: Introduction to Electronic Instrumentation
- INTC 1312: Introduction to Instrumentation and Safety Technology
- INTC 1315: Final Control Elements
- INTC 1348: Analytical Instrumentation
- INTC 1355: Unit Operations
- INTC 1356: Instrumentation Calibration

**TOTAL**

42 SEMESTER HOURS

**PROCESS TECHNOLOGY SPECIALIST**

**Major Code - INTC.CERT.PT**

The Process Technology Program offers students core courses related to the Process Operations that will prepare them to develop a career in an operational environment in the petrochemical and manufacturing industry. Students entering this program should realize that Process Operators generally work rotating shifts, perform tasks requiring good mental and physical aptitude and work with a variety of equipment.

**MAJOR REQUIREMENTS**

- COSC 1301: Computer Concepts
- INTC 1312: Introduction to Instrumentation Technology
- INTC 1315: Control Valves
- INTC 1355: Unit Operations
- PTAC 2420: Process Technology II Systems
- PTAC 2438: Process Technology III Operations

**TOTAL**

20 SEMESTER HOURS

**TELECOMMUNICATION SPECIALIST**

**Major Code - CETT.CERT.TEL**

Prepares students to be able to install, operate, troubleshoot and maintain telecommunication equipment in a variety of industrial settings.

**MAJOR REQUIREMENTS**

- CETT 1403: DC Circuits
- CETT 1405: AC Circuits
- CETT 1425: Digital Fundamentals
- CETT 1329: Solid State Devices
- CETT 1345: Microprocessors
- CPMT 1349: Computer Networking Technology
- CSIR 1355: Industrial Certification (F.C.C.)
- EECT 2433: Telephone Systems
- EECT 2435: Telecommunications
- EECT 2439: Communications Circuits
- INTC 1305: Introduction to Electronic Instrumentation
- LOTT 1301: Introduction to Fiber Optics

**TOTAL**

42 SEMESTER HOURS

**INSTRUMENT and CONTROL TECHNOLOGY**

**ROBOTICS TECHNOLOGY OPTION**

Program Advisor: Jack Stanley, 371-5274 (stanley-jb@actx.edu) or contact the Sciences and Engineering Division, 371-5091

**ASSOCIATE IN APPLIED SCIENCE**

**Major Code - CETT.AAS.RBTC**

Robotics students focus on automated manufacturing processes as well as the role of robots and all support equipment through instruction in motion programming, conveyor systems, computer networking, automated sorting systems, PLC programming, sensor systems and computer integration.

**GENERAL EDUCATION REQUIREMENTS**

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
Communications
- ENGL 1301: Freshman Composition I
- SPCH*

Humanities/Fine Arts*

Mathematics/Natural Sciences
- MATH 1314: College Algebra

Social/Behavioral Science*

MAJOR COURSE REQUIREMENTS ..................................................40
- CETT 1403: DC Circuits
- CETT 1405: AC Circuits
- CETT 1425: Digital Fundamentals
- EECT 1380: Cooperative Education
- or
- EECT 1391: Special Topics
- ENTC 1301: Robotics I
- ENTC 2301: Robotics II
- INTC 2336: Distributed Control & Programmable Logic
- RBTC 1345: Robotic Interfacing
- RBTC 2339: Robotic Programming & Diagnostics
- RBTC 2345: Robotic Application, Setup & Testing
- RBTC 2447: Computer Integrated Manufacturing
- QCTC 1303: Quality Control

RELATED COURSE REQUIREMENTS ............................................9
- COSC 1301: Computer Concepts
- DFTG 1309: Basic Computer-Aided Drafting
- ELMT 2371: Industrial Electronics

TOTAL .................................................................64

INSTRUMENT and CONTROL TECHNOLOGY

ROBOTS TECHNOLOGY OPTION
Program Advisor: Jack Stanley, 371-5274 (stanley-jb@actx.edu) or contact the Sciences and Engineering Division, 371-5091

CERTIFICATE OF COMPLETION
Major Code - Below

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

ROBOTS TECHNICIAN CERTIFICATE
Major Code - CETT.CERT.RBTC

Robotics Technicians install, program, and repair robots and related equipment, such as programmable controllers, robot controllers, end-of-arm tools, and conveyors. They review related manuals, blueprints, and schematic diagrams to determine the tasks, tools, equipment, and parts needed to complete a work order. Specific duties include inspecting installation sites, positioning the robots using hydraulic tools, attaching wires between controllers, programming the robots to perform specific tasks, and testing electronic circuitry.

SEMESTER HOURS
- MAJOR COURSE REQUIREMENTS ........................................24
- CETT 1403: DC Circuits
- CETT 1405: AC Circuits
- CETT 1425: Digital Fundamentals
- ENTC 1301: Robotics I
- ENTC 2301: Robotics II
- INTC 2336: Distributed Control & Programmable Logic
- RBTC 1345: Robotic Interfacing

TOTAL .................................................................24

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
### MAJOR COURSE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDS 1301</td>
<td>Basic Elements of Design</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1341</td>
<td>Color Theory and Application</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1319</td>
<td>Technical Drawing for Interior Designers</td>
<td>4</td>
</tr>
<tr>
<td>INDS 2321</td>
<td>Presentation Drawings</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1315</td>
<td>Materials, Methods, and Estimating</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1349</td>
<td>Fundamentals of Space Planning</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2325</td>
<td>Professional Practices for Interior Designers</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2305</td>
<td>Interior Design Graphics</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1345</td>
<td>Commercial Design I</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1351</td>
<td>History of Interiors I</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2317</td>
<td>Rendering Techniques</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2307</td>
<td>Textiles for Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2315</td>
<td>Lighting for Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2313</td>
<td>Residential Design I</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1352</td>
<td>History of Interiors II</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2330</td>
<td>Interior Design Building Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** .......................................................... 63

### INTERIOR DESIGN

Program Advisor: Karen Stone, 335-4331 (stone-ke@actx.edu) or contact the Interior Design Department, 335-4330

### PROFESSIONAL CERTIFICATE

**Major Code - INDS.CERT.PRO**

**SEMESTER HOURS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDS 2364</td>
<td>Practicum - Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2431</td>
<td>Commercial Design II</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2237</td>
<td>Portfolio Presentation</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2435</td>
<td>Residential Design II</td>
<td>3</td>
</tr>
</tbody>
</table>

**RELATED REQUIREMENTS** ............................................ 9-10

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 1303</td>
<td>Art History I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDS 1391</td>
<td>Special Topics in Interior Design: Bath Design</td>
<td>3</td>
</tr>
<tr>
<td>and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDS 1491</td>
<td>Special Topics in Interior Design: Kitchen Design</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 2319</td>
<td>Intermediate Computer-Aided Drafting</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVE** .......................................................... 3

(Approved by the program advisor)

**TOTAL** .......................................................... 25-26

### MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDS 1301</td>
<td>Basic Elements of Design</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1315</td>
<td>Materials, Methods, and Estimating</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1319</td>
<td>Technical Drawing for Interior Designers</td>
<td>4</td>
</tr>
<tr>
<td>INDS 1341</td>
<td>Color Theory and Application</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1349</td>
<td>Fundamentals of Space Planning</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2325</td>
<td>Professional Practice for Interior Designers</td>
<td>3</td>
</tr>
<tr>
<td>INDS 2305</td>
<td>Interior Design Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** .......................................................... 24

### JOURNALISM

(See Mass Communication)

### LAW (PRE-LAW)

Program Advisor: Larry Adams, 371-5191 (adams-lg@actx.edu) or contact the Behavioral Studies Division, 371-5296

### ASSOCIATE IN ARTS

**Major Code - LART.AA**

### ASSOCIATE IN SCIENCE

**Major Code - LART.AS**

### LIBERAL ARTS

Program Advisor: Dr. Brian Farmer, 371-5193 (farmer-br@actx.edu) or contact the Behavioral Studies Division, 371-5296

### ASSOCIATE IN ARTS

**Major Code - LART.AA**

### ASSOCIATE IN SCIENCE

**Major Code - LART.AS**

This curriculum is designed for those students who do not wish to declare a major but who wish to complete an associate degree as a foundation for a future baccalaureate degree.

### GENERAL EDUCATION REQUIREMENTS*

**Communication**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Freshman Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1302</td>
<td>Freshman Composition II</td>
<td>3</td>
</tr>
<tr>
<td>Speech Communication*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Social/Behavioral Sciences**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1301</td>
<td>History of the U.S. I</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1302</td>
<td>History of the U.S. II</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 2305</td>
<td>Government of the U.S.</td>
<td>3</td>
</tr>
</tbody>
</table>

---

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective

Humanities/Fine Arts
Humanities
 English 2322: Master works of English Literature
Fine Arts*

Mathematics/Natural Sciences
 MATH*
Natural Sciences*

Lifetime Fitness
Any PHED course numbered 1101-1122

RECOMMENDED COURSES ........................................20-24
Students will be advised on all recommended courses based upon the catalog at the university where student intends to transfer (two of which will be sophomore level or courses requiring prerequisites).

TOTAL .................................................................62-66

MANAGEMENT - BUSINESS MANAGEMENT
Program Advisors: Anne Nail, 371-5265 (nail-ah@actx.edu)
or Susan Burks, 371-5261 (burks-sg@actx.edu) or contact the Business Division, 371-5269

ASSOCIATE IN APPLIED SCIENCE
Major Code - BMGT.AAS
Prepares students for positions requiring training in management. Students may specialize in one of three areas: Business Management, Marketing Management, or Convenience Store Management. Students completing their curriculum may qualify to enter a Bachelor of Applied Arts and Sciences degree program at a four-year institution. Students seeking a Bachelor of Business Administration degree with a major in Management should follow the Business Administration degree plan.

GENERAL EDUCATION REQUIREMENTS*

Communication
 ENGL 1301: Freshman Composition I
 SPCH 1321: Business and Professional Speaking

Humanities/Fine Arts*

Mathematics/Natural Sciences
 MATH 1333: Contemporary Mathematics (or any MATH*)

Social/Behavioral Sciences
 ECON 2301: Principles of Economics I

MAJOR COURSE REQUIREMENTS .........................37
HRPO 1311: Human Relations
BMGT 1301: Supervision
BMGT 1305: Communications in Management
HRPO 2301: Human Resources Management
MRKG 1311: Principles of Marketing
BMGT 2305: Advanced Communications in Management
BCIS 1405: Business Computer Applications
ACCT 2301: Accounting Principles I
BMGT 1382: Cooperative Education
BMGT 1383: Cooperative Education
BMGT 2331: Principles of Quality Management
BMGT 2341: Strategic Management

RELATED COURSE REQUIREMENTS ......................9-15
Student will choose one of the following options:
Business Management
BCIS 1301: Microcomputer Applications

Students will select 3-6 hours from the following:
BUSG 1315: Small Business Operations#
BUSG 2309: Small Business Management-
Entrepreneurship#
BUSI 2371: Principles of Management

Students will also select 0-6 hours from the following:
BMGT 1373: Professional Image Development
BMGT 1307: High Performance Work Teams
BMGT 2303: Problem Solving and Decision Making
BUAS 1313: Investments
BUSI 2301: Business Law I

#(For an emphasis in Entrepreneurship, student may take both Small Business Operations and Small Business Management-Entrepreneurship)

Marketing Management
COMM 2327: Introduction to Advertising
BCIS 1301: Microcomputer Applications
MRKG 2333: Principles of Selling

Students may select an additional 0-6 hours from the following:
BMGT 1373: Professional Image Development
BUSG 1315: Small Business Operations
BUSG 2309: Small Business Management-
Entrepreneurship
BUSI 2371: Principles of Management
BMGT 1307: High Performance Work Teams
BMGT 2303: Problem Solving and Decision Making

Convenience Store Management
BMGT 1171: Customer Service
BMGT 1373: Professional Image Development
BMGT 2377: Convenience Store Operations

Students will select an additional 3-6 hours from the following:
BUSG 1315: Small Business Operations
BMGT 1307: High Performance Work Teams
BMGT 2303: Problem Solving and Decision Making
BCIS 1301: Microcomputer Applications

ELECTIVE .............................................................3

TOTAL ......................................................................64-70

MANAGEMENT - BUSINESS MANAGEMENT
Program Advisors: Anne Nail, 371-5265 (nail-ah@actx.edu)
or contact the Business Division, 371-5269

CERTIFICATES OF COMPLETION
Major Codes - BELOW

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

ONE-YEAR CERTIFICATE OPTIONS
For students who wish to gain a general limited background required for many entry level business-related positions.

BUSINESS MANAGEMENT
Major Code - BMGT.CERT

GENERAL EDUCATION REQUIREMENTS*

ENGL 1301: Freshman Composition I
SPCH 1321: Business and Professional Speaking

MAJOR COURSE REQUIREMENTS .........................24-25
HRPO 1311: Human Relations
BMGT 1301: Supervision
BMGT 1305: Communications in Management
BUSG 1315: Small Business Operations

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
SAMEER FOR STUDENTS WHO WISH TO GAIN A BASIC UNDERSTANDING OF MANAGEMENT SKILLS AND THE BASICS OF STARTING AND RUNNING A BUSINESS.

**CONTACT THE TESTING CENTER OR THE PROGRAM ADVISOR FOR TESTING REQUIREMENTS.**

**MAJOR CODE - BMGT.SHCT.SBM**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT 1171: Customer Service</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311: Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>BMGT 1301: Supervision</td>
<td>3</td>
</tr>
<tr>
<td>BMGT 1305: Communications in Management</td>
<td>3</td>
</tr>
<tr>
<td>BMGT 1373: Professional Image Development</td>
<td>3</td>
</tr>
<tr>
<td>BMGT 2377: Convenience Store Operations</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 2301: Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>BMGT 2305: Advanced Communications in Management</td>
<td>3</td>
</tr>
<tr>
<td>POFT 1325: Business Math and Machine Application</td>
<td>3</td>
</tr>
<tr>
<td>COSC 1301: Computer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>BCIS 1405: Business Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>30-31</strong></td>
</tr>
</tbody>
</table>

**CONVENIENCE STORE MANAGEMENT**

**MAJOR CODE - BMGT.CERT.CS/M**

**GENERAL EDUCATION REQUIREMENTS**

- ENGL 1301: Freshman Composition .................. 6
- SPC 1321: Business and Professional Speaking

**MAJOR COURSE REQUIREMENTS** 28-29

- BMGT 1171: Customer Service
- HRPO 1311: Human Relations
- BMGT 1301: Supervision
- BMGT 1305: Communications in Management
- BMGT 1373: Professional Image Development
- BMGT 2377: Convenience Store Operations
- HRPO 2301: Human Resources Management
- BMGT 2305: Advanced Communications in Management
- POFT 1325: Business Math and Machine Application
- COSC 1301: Computer Concepts
- or
- BCIS 1405: Business Computer Applications

**TOTAL** 34-35

**SMALL BUSINESS MANAGEMENT CERTIFICATE**

**MAJOR CODE - BMGT.SHCT.SBM**

**Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.**

**For students who wish to gain a basic understanding of management skills and the basics of starting and running a business.**

- HRPO 1311: Human Relations
- BMGT 1301: Supervision
- BMGT 1305: Communications in Management
- BUSG 1315: Small Business Operations
- BUSG 2309: Small Business Management - Entrepreneurship

**TOTAL** 15

**MANAGEMENT SHORT-TERM**

**MAJOR CODE - BMGT.SHCT.MGMT**

**Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.**

**For students who wish to gain a basic understanding of management skills and techniques. Students completing this program will be awarded a departmental certificate. Application for graduation is not required and students will not participate in commencement. Departmental certificates will not be recorded on official transcripts. Contact the department chair for additional information.**

- HRPO 1311: Human Relations
- BMGT 1301: Supervision
- BMGT 1305: Communications in Management

**TOTAL** 9

**CONVENIENCE STORE MANAGEMENT SHORT-TERM**

**MAJOR CODE - BMGT.SHCT.CNSV**

**Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.**

**For students who wish to gain a basic understanding of management skills required for successful management of convenience or other retail stores. Students completing this program will be awarded a departmental certificate. Application for graduation is not required and students will not participate in the commencement. Departmental certificates will not be recorded on official transcripts. Contact the department chair for additional information.**

- BMGT 1171: Customer Service
- HRPO 1311: Human Relations
- BMGT 1301: Supervision
- BMGT 1305: Communications in Management

**TOTAL** 10

**MARKETING MANAGEMENT**

(See Management)

**MASS COMMUNICATION**

**Program Advisor: Dr. Paul Matney, 371-5226 (matney-jp@actx.edu) or Lana Jackson, 371-5292 (jackson-lc@actx.edu) or contact the Language, Communication and Fine Arts Division, 371-5267**

**ASSOCIATE IN SCIENCE**

**MAJOR CODE - COMM.AS.MCOMM**

The following program of study follows the Communication Field of Study Curricula for Advertising/Public Relations, Journalism, and Mass Communication/Radio-TV as adopted by the Higher Education Coordinating Board. Students who follow this curricula will be able to major in the above fields of study and transfer between 12 and 15 hours of course work in these major program options to public two- and four-year institutions in Texas.

**GENERAL EDUCATION REQUIREMENTS**

- ENGL 1301: Freshman Composition .................. 42
- SPC 1321: Business and Professional Speaking

**Communication**

- ENGL 1301: Freshman Composition I
- ENGL 1302: Freshman Composition II
- SPC 1321: Business and Professional Speaking

**Social/Behavioral Sciences**

- HIST 1301: History of the U.S. I
- HIST 1302: History of the U.S. II
- GOVT 2305: Government of the U.S.
- GOVT 2306: Government of Texas
- Social/Behavioral Sciences* Elective

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs**
Humanities/Fine Arts

Humanities*
Fine Arts*

Mathematics/Natural Sciences

MATH*
Natural Sciences*

Lifetime Fitness

Any PHED course numbered 1101-1122

MAJOR OPTIONS ..............................................................15

Students should select a program option in one of the following areas:

Advertising/Public Relations
COMM 1307: Introduction to Mass Communication
COMM 1336: Introduction to Radio-TV Production
COMM 2311: News Reporting and Writing I
COMM 2327: Introduction to Advertising

Students must take one of the following courses:
COMM 1318: Photography I
COMM 2305: Editing and Design
COMM 2339: Writing for Electronic Media

Journalism
COMM 1307: Introduction to Mass Communication
COMM 2311: News Reporting and Writing I
COMM 2315: News Reporting and Writing II
COMM 2305: News Editing and Design
COMM 2339: Writing for Electronic Media

Mass Communication/Radio-TV
COMM 1307: Introduction to Mass Communication
COMM 1335: Survey of Electronic Media
COMM 1336: Introduction to Radio/TV Production
COMM 2331: Announcing for Radio-Television

Students must take one of the following courses:
COMM 2303: Radio Production I
COMM 1337: Television Production
COMM 2332: Broadcast News
COMM 2339: Writing for Electronic Media

RECOMMENDED COURSES ..................................................5-6

Students will be advised for other courses based on the university to which they plan to transfer.

TOTAL ............................................................................62-63

Mathematics

Program Advisor: Dr. Kathryn Wetzel, 371-5097 (wetzel-kc@actx.edu) or contact the Sciences and Engineering Division, 371-5091

#MATH 2413: 3 hours satisfy General Education Requirements; additional hour will satisfy mathematics major transfer to 4 year institutions.

ASSOCIATE IN SCIENCE

Major Code - MATH.AS

GENERAL EDUCATION REQUIREMENTS* ..................43

Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH*

Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective

Humanities/Fine Arts
Humanities*

Fine Arts*

Mathematics/Natural Sciences

MATH 2413: Calculus I
PHYS 2425: Principles of Physics I and
PHYS 2426: Principles of Physics II
or both
CHEM 1311/1111: Principles of Chemistry I and
CHEM 1312/1112: Principles of Chemistry II

Lifetime Fitness

Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS ........................................11

MATH 2414: Calculus II
MATH 2415: Calculus III
MATH 2320: Differential Equations

RECOMMENDED COURSES ..............................................12

Students will be advised for other courses based on the university to which they plan to transfer.

TOTAL ............................................................................66

Optional courses:
MATH 2318: Linear Algebra
COSC 1317: Computer Programming for Engineers and Scientists
GERM 1411/1412: First Year German I, II
FREN 1411/1412: First Year French I, II

MEDICAL DATA SPECIALIST

Program Advisor: Judy Massie, 354-6068 (massie-je@actx.edu) or contact the Allied Health Division, 354-6055

CERTIFICATE OF COMPLETION

Major Code - MDSP.CERT

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

This curriculum prepares the student as a Medical Data Specialist (MDSP). The Medical Data Specialist schedules patients, files insurance, codes for federal and state reimbursements and collections, types correspondence, transcribes from medical dictation, maintains telephone communication and collates all files to maintain the patient’s record. Upon completion of this curriculum, a certificate will be awarded.

A grade of C or higher is required for satisfactory completion of all courses.

To continue in the program a student may repeat a required course only one time, and may repeat no more than two required courses while enrolled in the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, drop or an unsatisfactory grade from a class.

A student seeking entry into the Medical Data Specialist program must file a specific program application and complete additional admission procedures as required.

MAJOR REQUIREMENTS ..........................................................32

SPNL 1201: Health Care Spanish
HPRS 1205: Medical Law/Ethics for Health Professionals
MDCA 1220: Administrative Procedures I
MDCA 1221: Administrative Procedures II
MDCA 1242: Medical Insurance I
MDCA 1243: Medical Insurance II
POFM 1264: Practicum
MDCA 1302: Human Disease/Pathophysiology
MRMT 1307: Medical Transcription Fundamentals

*Mathematics/Natural Sciences

MATH 2413: Calculus I
PHYS 2425: Principles of Physics I and
PHYS 2426: Principles of Physics II
or both
CHEM 1311/1111: Principles of Chemistry I and
CHEM 1312/1112: Principles of Chemistry II

Lifetime Fitness

Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS ........................................11

MATH 2414: Calculus II
MATH 2415: Calculus III
MATH 2320: Differential Equations

RECOMMENDED COURSES ..............................................12

Students will be advised for other courses based on the university to which they plan to transfer.

TOTAL ............................................................................66

Optional courses:
MATH 2318: Linear Algebra
COSC 1317: Computer Programming for Engineers and Scientists
GERM 1411/1412: First Year German I, II
FREN 1411/1412: First Year French I, II

MEDICAL DATA SPECIALIST

Program Advisor: Judy Massie, 354-6068 (massie-je@actx.edu) or contact the Allied Health Division, 354-6055

CERTIFICATE OF COMPLETION

Major Code - MDSP.CERT

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

This curriculum prepares the student as a Medical Data Specialist (MDSP). The Medical Data Specialist schedules patients, files insurance, codes for federal and state reimbursements and collections, types correspondence, transcribes from medical dictation, maintains telephone communication and collates all files to maintain the patient’s record. Upon completion of this curriculum, a certificate will be awarded.

A grade of C or higher is required for satisfactory completion of all courses.

To continue in the program a student may repeat a required course only one time, and may repeat no more than two required courses while enrolled in the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, drop or an unsatisfactory grade from a class.

A student seeking entry into the Medical Data Specialist program must file a specific program application and complete additional admission procedures as required.

MAJOR REQUIREMENTS ..........................................................32

SPNL 1201: Health Care Spanish
HPRS 1205: Medical Law/Ethics for Health Professionals
MDCA 1220: Administrative Procedures I
MDCA 1221: Administrative Procedures II
MDCA 1242: Medical Insurance I
MDCA 1243: Medical Insurance II
POFM 1264: Practicum
MDCA 1302: Human Disease/Pathophysiology
MRMT 1307: Medical Transcription Fundamentals

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
POFM 1313: Medical Terminology I  
POFM 1333: Pharmacology for Office Personnel  
POFM 2323: Medical Terminology II  
MRMT 2333: Advanced Medical Transcription

**RELATED REQUIRED COURSES** ................................................................. 9

ENGL 1301: Freshman Composition I  
SPCH 1318: Interpersonal Communication  
POFI 2301: Word Processing

**TOTAL** ........................................................................................................ 41

**MEDICAL LABORATORY TECHNOLOGY**
Program Advisor: Janet Martin, 354-6059 (martin-jm@actx.edu) or contact the Allied Health Division, 354-6055

**ASSOCIATE IN APPLIED SCIENCE**
Major Code - MLAB.AAS

This two year program prepares the student to perform laboratory procedures which aid the physician and pathologist in the diagnosis and treatment of disease in the hospital, clinic or research laboratory. Upon successful completion of this program, the student will be eligible to write a national certification examination for the Medical Laboratory Technician.

The MLAB courses are to be taken in sequential order unless special permission has been granted, in advance, by the Program Director or Education Coordinator. A grade of C or higher is required for satisfactory completion of all required MLAB, mathematics, and science courses.

To continue in the program, a student may repeat a MLAB course only one time, and may repeat no more than two courses while enrolled in the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, drop or an unsatisfactory grade from a class. Students who are forced to withdraw from the college during a given semester may re-apply for admission to the program. Once the student has actually begun the program, he/she must complete all MLAB major courses within 36 months. A student seeking entry into Medical Laboratory Technology must file a specific program application form with the department and complete additional admission procedures as required.

**SEMESTER HOURS**

**GENERAL EDUCATION REQUIREMENTS*** ........................................ 19

**Communication**
ENGL 1301: Freshman Composition I  
SPCH*

**Humanities/Fine Arts***

**Mathematics/Natural Sciences**
CHEM* (must have lecture/lab components totaling 4 semester hrs.)  
MATH 1333: Contemporary Mathematics OR  
MATH 1314 College Algebra

**Social/Behavioral Sciences***

**MAJOR COURSE REQUIREMENTS** .................................................... 46

PLAB 1163: Clinical - Phlebotomy/Phlebotomist  
MDCA 1409: Anatomy and Physiology for Medical Assistants  
MLAB 1201: Introduction to Clinical Laboratory Science  
MLAB 1211: Urinalysis and Body Fluids  
PLAB 1223: Phlebotomy  
MLAB 1227: Coagulation  
MLAB 1235: Immunology/Serology  
MLAB 1331: Parasitology/Mycology  
MLAB 1415: Hematology

**MLAB 2266: Practicum I**  
**MLAB 2267: Practicum II**  
**MLAB 2271: Seminar I**  
**MLAB 2431: Immunohematology**  
**MLAB 2432: Seminar II**  
**MLAB 2501: Clinical-Chemistry**  
**MLAB 2534: Clinical-Microbiology**

**RELATED REQUIRED COURSES** .................................................. 5

SPNL 1201: Health Care Spanish  
POFM 1313: Medical Terminology I

**TOTAL** ............................................................................................................... 70

**MEDICAL TECHNOLOGY**
(See Biology)

**MEDICINE**
(See Biology)

**MODERN LANGUAGES**
Program Advisor: Joyce Hinsley, 371-5078 (hinsley-dj@actx.edu) or Terry Moore, 371-5077 (moore-rt@actx.edu) or contact the Language, Communication, and Fine Arts Division, 371-5267

**ASSOCIATE IN ARTS**
Major Code - LANG.AA

**SEMESTER HOURS**

**GENERAL EDUCATION REQUIREMENTS*** ..................................... 42

**Communication**
ENGL 1301: Freshman Composition I  
ENGL 1302: Freshman Composition II  
SPCH*

**Social/Behavioral Sciences**
HIST 1301: History of the U.S. I  
HIST 1302: History of the U.S. II  
GOVT 2305: Government of the U.S.  
GOVT 2306: Government of Texas  
Social/Behavioral Sciences* Elective

**Humanities/Fine Arts**
Humanities  
Literature*  
Fine Arts*

**Mathematics/Natural Sciences**
MATH*  
Natural Sciences*

**Lifetime Fitness**
Any PHED course numbered 1101-1122

**MAJOR COURSE REQUIREMENTS** .................................................. 12-16

Modern Languages: In consultation with the advisor, students should select appropriate courses in at least two of the languages included in the list of Humanities courses.

**RECOMMENDED COURSES** .................................................. 4-8

Students will be advised for other courses based on the university to which they plan to transfer

**TOTAL** ........................................................................................................ 62-66

**MORTGAGE LENDING**
(See Real Estate)

**MORTUARY SCIENCE**
Program Advisor: Jason Altieri, 356-3631 (altieri-ic@actx.edu)

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
ASSOCIATE IN APPLIED SCIENCE
Major Code - MRTS.AAS

Provides prospective funeral service practitioners with the theoretical knowledge and the practical skills which are currently demanded for success in the industry. Educate students concerning the responsibilities of the funeral service profession to the community at large and emphasize high standards of ethical conduct.

Students seeking entry into the Associate of Applied Science degree in Mortuary Science must complete a specific program admission form and meet all admission requirements. Prior conviction of a felony may render the student ineligible to practice in the state of Texas. ADD: All students of the Mortuary Science Program must take the National Board Examination as required by the American Board of Funeral Service Education (ABFSE) as a requirement to graduate.

GENERAL EDUCATION REQUIREMENTS* ........................................ 35

MUSIC
Program Advisor: Dr. Jim Rauscher, 371-5350 (rauscher-jf@actx.edu) or contact Janice Easterday, (easterday-js@actx.edu) Fine Arts administrative assistant, in the Fine Arts Office, 371-5340

ASSOCIATE IN SCIENCE
Major Code - MUSIAS

GENERAL EDUCATION REQUIREMENTS* ........................................ 35

MORTUARY SCIENCE
Program Advisor: Jason Altieri, 371-3631 (altieri-jc@actx.edu) or contact the Sciences and Engineering Division, 371-5091

CERTIFICATE OF COMPLETION
Major Code - MRTS.CERT

Contact the Testing Center or the Program Advisor for testing requirements.

The Certificate of Completion for funeral directing is offered to meet specific state or professional needs. The program is directed at the student desiring licensure as a funeral director only in the State of Texas. (It does not include instruction in embalming, restorative art, microbiology, pathology, chemistry or anatomy); therefore it is not accredited by the American Board of Funeral Service Education.

Students completing this program are eligible to sit for the Texas State Board Examination only. Prior conviction of a felony; or a misdemeanor involving funeral directing and/or embalming renders the student ineligible to practice in the State of Texas.

GENERAL EDUCATION REQUIREMENT* ........................................ 23

MRTS 1211: History of Mortuary Science
MRTS 1301: Contemporary Funeral Service Practices
MRTS 1310: Funeral Service Clinical Orientation
MRTS 1342: Mortuary Management I
MRTS 2335: Mortuary Jurisprudence
MRTS 2342: Mortuary Management II
MRTS 1360: Funeral Service Clinical I
MRTS 1391: Special Topics in Funeral Service and Mortuary Science

RELATED REQUIRED COURSES ...................................................... 12
ENGL 1301: Freshman Composition I
SPCH 1315, 1318, 1321

TOTAL .......................................................................................... 35

MUSIC

COMMUNICATION
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II

SOCIAL/BEHAVIORAL SCIENCES
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas

HUMANITIES/FINE ARTS
MUSI 1309: Introduction to Music Literature II

MATHEMATICS/NATURAL SCIENCES
MATH* 

MAJOR COURSE REQUIREMENTS .................................................. 31
MUSI 1308: Introduction to Music Literature I
MUSI 1116/1211: Elementary Ear-Training and Theory I
MUSI 1117/1212: Elementary Ear-Training and Theory II
MUSI 2116/2211: Advanced Ear-Training and Theory I
MUSI 2117/2212: Advanced Ear-Training and Theory II
MUAP 12XX, 12XX, 22XX, 22XX

(One ensemble per semester for 4 semesters)

Music Instruction (4 semesters private instruction in the student's major area)

Piano (4 semesters)

(Students may take MUSI 1181 and 1182, Piano

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
NONDESTRUCTIVE TESTING AND EVALUATION
Program Advisor: Bob Lee, 335-4277 (lee-rc@actx.edu) or contact the Manufacturing Technologies Department, 335-4390

ASSOCIATE IN APPLIED SCIENCE
Major Code - NDTE.AAS
Prepares students to set up and calibrate equipment, interpret and evaluate results based upon nondestructive testing methods with respect to applicable codes, standards and specifications and prepares a person to be a non-destructive inspection technician and for ASNT certification examination.

GENERAL EDUCATION REQUIREMENTS*

Communication
- ENGL 1301: Freshman Composition I
- SPCH*

Humanities/Fine Arts*
- Mathematics/Natural Sciences
- MATH 1314: College Algebra
- Social/Behavioral Sciences*

MAJOR COURSE REQUIREMENTS
- NDTE 1271: Introduction to NDT
- NDTE 1405: Introduction to Ultrasonic Testing
- NDTE 1410: Liquid Penetrant/Magnetic Particle Testing
- NDTE 1450: Introduction to Radiographic Testing
  (Radiography for Welders)
- NDTE 2401: Advanced Ultrasonic Testing
- NDTE 2470: Advanced Radiographic Testing
- NUCP 1371: Radiation Safety for Industrial Radiographers
- NUCP 1319: Radiation Physics
- or
- MATH 1316: Trigonometry
- and
- PHYS 1301/1101: College Physics I/Lab

RELATED REQUIRED COURSES
Students should Complete a minimum of 19 hours from the following course list.
- AERM 1254: AirCraft Composites
- CETT 1305: AC Circuits
- COSC 1301: Computer Science
- ENTC 1341: Metallurgy
- QCTC 1341: Statistical Process Control
- WLDG 2413: Welding Using Multiple Processes
- ENTC 1349: Reliability and Maintainability
- ENTC 2320: Thermography and Vibration Analysis
- METL 2341: Cathodic Protection

TOTAL

NONDESTRUCTIVE TESTING AND EVALUATION
Program Advisor: Bob Lee, 335-4277 (lee-rc@actx.edu) or contact the Manufacturing Technologies Department, 335-4390

CERTIFICATE OF COMPLETION
Major Code - NDTE.CERT
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

MAJOR COURSE REQUIREMENTS

SEMESTER HOURS
- AERM 1254: AirCraft Composites .......................... 6
- CETT 1305: AC Circuits
- ENTC 1341: Metallurgy
- QCTC 1341: Statistical Process Control
- WLDG 2413: Welding Using Multiple Processes

TOTAL ........................................................................ 42

NETWORKING TECHNOLOGY
(See Electronics Systems Technology)

NUCLEAR MEDICINE
Program Advisor: Mark Rowh, 354-6071 (rowh-me@actx.edu) or contact the Allied Health Division, 354-6055

ASSOCIATE IN APPLIED SCIENCE
Major Code - NMRTT.AAS.NM
This program provides the basic skills required of a beginning staff technologist practicing in nuclear medicine. Upon satisfactory completion of the curriculum, the graduate will be eligible to write the national certification examination administered by the American Registry of Radiologic Technologists and/or the National Nuclear Medicine Technology Certification Board (NMTCB).

All of the major requirement courses are to be taken in a sequential order or at the advisement of the department major advisor. A grade of C or higher is required for satisfactory completion of all courses. To continue in the program, a student may repeat a NMTT course only one time and may repeat no more than two NMTT courses while enrolled in...
the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, drop, or unsatisfactory grade.

A student seeking entry into Nuclear Medicine must file a specific program application form and complete additional admission procedures as required. **Students may not take any of the major NMTT courses until acceptance into the program.**

**SEMESTER HOURS**

**GENERAL EDUCATION REQUIREMENTS**

**Communication**
ENGL 1301: Freshman Composition I
SPCH 1318: Interpersonal Communication

**Humanities/Fine Arts**

**Mathematics/Natural Sciences**
BIOL 2401: Human Anatomy and Physiology I
BIOL 2402: Human Anatomy and Physiology II
CHEM 1305: Introductory Chemistry
MATH 1333: Contemporary Mathematics (or any MATH*)

**Social/Behavioral Sciences**

**MAJOR COURSE REQUIREMENTS**
NMTT 1266: Practicum I
NMTT 1267: Practicum II
RADR 1303: Patient Care in Radiology
NMTT 1305: Nuclear Medicine Data Processing
NMTT 1309: Nuclear Medicine Instrumentation
NMTT 1313: Nuclear Medicine Physics
NMTT 1301: Introduction to Nuclear Medicine
NMTT 2266: Practicum III
NMTT 2267: Practicum IV
NMTT 2301: Radiochemistry and Radiopharmacy
NMTT 2309: Nuclear Medicine Methodology II
NMTT 2313: Nuclear Medicine Methodology III
NMTT 2366: Practicum IV
NMTT 2367: Practicum V
NMTT 2368: Nuclear Medicine Seminar

**RELATED REQUIRED COURSES**
POFM 1313: Medical Terminology
Physics*

**TOTAL**


**NURSING - ASSOCIATE DEGREE NURSING (ADN)**

Program Advisor: Sheryl Mueller, 354-6010 (mueller-se@actx.edu) or contact the Nursing Division, 354-6009

**ASSOCIATE IN APPLIED SCIENCE**

**Major Code - RNSG.AAS**

The following curriculum is designed for the student who wishes to enter the nursing profession directly upon the completion of the two year course of study. Accredited by Texas Board of Nurse Examiners and the National League for Nursing Accrediting Commission (NLNAC), [61 Broadway-33rd Floor, New York City, NY 10006, 1-800-669-1656].

Students completing this curriculum are eligible to take the State Board examination for the Registered Nurse License. Prior conviction for a felony may render the student ineligible to take the NCLEX-RN exam which qualifies one to practice as a Registered Nurse.

The student must have a grade of C or higher in all required courses in order to progress to the next level of the program. Any nursing course with a required concurrent clinical course is integrated and inseparable; thus a student must pass both components in the same semester in order to be eligible to enroll in the next level.

To continue in the program, a student may repeat any nursing course or combination of concurrently enrolled nursing courses (class and concurrent clinical course) one time only, but may repeat no more than two different nursing course or course combinations in total while enrolled in the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, audit, drop, or unsatisfactory grade.

A student seeking entry into the Associate Degree Nursing (ADN) program must file a specific program application form and complete additional admission procedures as required. Students enrolled in a nursing course(s) in the Associate Degree Nursing program will be charged a fee of $65 per semester to the MEDS Publishing Learning System RN exams.

**SEMESTER HOURS**

**GENERAL EDUCATION REQUIREMENTS**

**Communication**
ENGL 1301: Freshman Composition I
SPCH* 

**Humanities/Fine Arts**

**Humanities**

**Mathematics/Natural Sciences**
MATH 1333: Contemporary Math (or any Math*)
BIOL 2401: Human Anatomy and Physiology I
BIOL 2402: Human Anatomy and Physiology II
BIOL 2421: Microbiology

**Social/Behavioral Sciences**
PSYC 2301: General Psychology

**RELATED REQUIRED COURSE**
HECO 1322: Principles of Nutrition

**MAJOR COURSE REQUIREMENTS**
RNSG 1209: Introduction to Nursing
RNSG 1105: Nursing Skills I
RNSG 1301: Pharmacology in Nursing
RNSG 1331: Principles of Clinical Decision Making
RNSG 1362: Clinical-Principals of Clinical Decision Making
RNSG 1247: Concepts of Clinical Decision Making I
RNSG 1263: Clinical-Concepts of Clinical Decision Making II
RNSG 1265: Clinical-Concepts of Clinical Decision Making III
RNSG 1248: Concepts of Clinical Decision Making II
RNSG 2163: Clinical-Concepts of Clinical Decision Making IV
RNSG 2251: Care of Children and Families
RNSG 2260: Clinical-Concepts of Clinical Decision Making V
RNSG 2213: Mental Health Nursing
RNSG 2261: Clinical-Mental Health Nursing
RNSG 2248: Concepts of Clinical Decision Making VI
RNSG 2262: Clinical-Advanced Concepts of Adult Health
RNSG 2221: Management of Client Care
RNSG 2263: Clinical-Management of Client Care
RNSG 1115: Health Assessment
RNSG 1110: Introduction to Community-Based Nursing
RNSG 2163: Clinical-Community-Based Nursing

**TOTAL**

**ADVANCED PLACEMENT OPTION (ADN)**

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs**
GENERAL EDUCATION REQUIREMENTS* and RELATED REQUIRED COURSE (same as above) ........30
MAJOR COURSE REQUIREMENTS ..............................................44-45
RNSG 2307: Transition to Nursing
HPRS 2200: Pharmacology for Health Professionals
or .................................................................................................
RNSG 1301: Pharmacology in Nursing
RNSG 1115: Health Assessment
RNSG 2201: Care of Children and Families
RNSG 2260: Clinical-Care of Children and Families
RNSG 1248: Concepts of Clinical Decision-Making II
RNSG 2261: Clinical-Concepts of Clinical Decision-Making II
RNSG 2213: Mental Health Nursing
RNSG 2161: Clinical-Mental Health Nursing
RNSG 2231: Advanced Concepts of Adult Health
RNSG 2262: Clinical-Advanced Concepts of Adult Health
RNSG 2221: Management of Client Care
RNSG 2263: Clinical-Management of Client Care
RNSG 1110: Introduction to Community-Based Nursing
RNSG 2163: Clinical-Introduction to Community-Based Nursing

Articulated credit will be granted for the following courses upon successful completion of RNSG 2307: Transition to Nursing:
RNSG 1209: Introduction to Nursing
RNSG 1105: Nursing Skills I
RNSG 1331: Principles of Clinical Decision Making
RNSG 1362: Clinical-Principles of Clinical Decision Making
RNSG 1251: Care of the Childbearing Family
RNSG 1260: Clinical-Care of the Childbearing Family
RNSG 1247: Concepts of Clinical Decision-Making I
RNSG 1263: Clinical-Concepts of Clinical Decision-Making I

TOTAL ......................................................................................74-75

NURSING (PRE-NURSING)
Program Advisor: Dr. Robert Bauman, 371-5093 (bauman-rw@actx.edu) or contact the Sciences and Engineering Division, 371-5091
ASSOCIATE IN SCIENCE
Major Code - RNSG.AS

GENERAL EDUCATION REQUIREMENTS* ........................42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH*
Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
PSYC 2301: General Psychology
Humanities/Fine Arts
Humanities*
Fine Arts*
Mathematics/Natural Sciences
MATH 1314: College Algebra
BIOL 2401: Human Anatomy and Physiology I
BIOL 2402: Human Anatomy and Physiology II
Lifetime Fitness
Any PHED course numbered 1101-1122

*Please see pages 44-46 for General Education Requirements and Course List

MAJOR COURSE REQUIREMENTS ..............................................17
CHEM 1405: Essentials of Chemistry I
or ...............................................................................................
CHEM 1305 AND CHEM 1105: Introductory Chemistry I and lab
BIOL 2421: Microbiology
HECO 1322: Nutrition
PSYC 2308: Child Psychology
SOCI 1301: Social Principles and Institutions

RECOMMENDED COURSES .....................................................7
Students will be advised for other courses based on the university to which they plan to transfer.

TOTAL ..........................................................................................
Optional courses:
COSC 1301: Computer Concepts
CHEM 1419: Introductory Organic Chemistry

NURSING - VOCATIONAL NURSING
Program Advisor: Lyndi Shadbolt, 356-3621 (shadbolt-lc@actx.edu) or contact the Vocational Nursing Department, 354-6015

CERTIFICATE OF COMPLETION
Major Code - VNSG.CERT

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

Students completing the curriculum are qualified to take the State Board examination for the Vocational Nursing license. Individuals accepted for enrollment or enrolled in the program shall be provided verbal and written information regarding conditions that may disqualify graduates from licensure. Prior conviction of a felony may render the student ineligible to take the State Board examination in Texas.

Students must have a grade of C or higher in all required courses in order to progress to the next level of the program. Any nursing course with a required concurrent clinical course is integrated and inseparable; thus a student must pass both components in the same semester in order to be eligible to enroll in the next level.

To continue in the program, a student may repeat any course or combination of concurrently enrolled nursing courses (class and concurrent clinical course) one time only, but may repeat no more than two different courses or concurrent nursing course combinations in total while enrolled in the program. The term "repeat" shall be interpreted to mean re-enrollment following withdrawal, audit, drop, or unsatisfactory grade.

Students seeking entry into Vocational Nursing must file a specific program application form and complete additional admission procedures as required.

LEVEL I ............................................................$27
Students enrolling in Vocational Nursing Level I will be charged $27 per course for VNSG 1323, 1236, 1304, 1400 and 1360.

LEVEL II ..........................................................$13
Students enrolling in Vocational Nursing Level II will be charged $13 per course for VNSG 1230, 2160, 1234, 2161, 1409, 1361, 2431 and 2163 for access to the Assessment Technologies Institute testing and tutorial software.

GENERAL EDUCATION REQUIREMENTS* ............................7
Natural Sciences

*Please see pages 9-10 for Testing Requirements for Certificate Programs
BIOL 2401: Human Anatomy and Physiology I

Related Required Course
HECO 1322: Principles of Nutrition

MAJOR COURSE REQUIREMENTS ........................................... 37
VNSG 1323: Basic Nursing Skills
VNSG 1236: Mental Health
VNSG 1304: Foundations of Nursing
RNSG 1301: Pharmacology
VNSG 1400: Nursing in Health and Illness I
VNSG 1360: Clinical: Nursing in Health and Illness I
VNSG 1230: Maternal-Neonatal Nursing
VNSG 2160: Clinical: Maternal-Neonatal Nursing
VNSG 1234: Pediatrics
VNSG 2161: Clinical: Pediatrics
VNSG 1409: Nursing in Health and Illness II
VNSG 1361: Clinical: Nursing in Health and Illness II
VNSG 2431: Advanced Nursing Skills
VNSG 2163: Clinical: Advanced Nursing Skills
VNSG 1163: Clinical: Intermediate

TOTAL .................................................................................... 44

OCCUPATIONAL THERAPY
(PRE-OCCUPATIONAL THERAPY)
Program Advisor: Sheree Talkington, 354-6079 (talkington-sl@actx.edu) or contact the Allied Health Division, 354-6055

ASSOCIATE IN SCIENCE
Major Code - OTHA.AS

Provides basic courses for the first two years of a four-year curriculum leading to a degree in Occupational Therapy.

SEMESTER HOURS

GENERAL EDUCATION REQUIREMENTS* ................................ 42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1315: Public Speaking
or...............................................................................
SPCH 1321: Business and Professional Speaking
Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective
Humanities/Fine Arts
Humanities*
Fine Arts*
Mathematics/Natural Sciences
MATH 1314: College Algebra
BIOL 2401: Human Anatomy and Physiology I
BIOL 2402: Human Anatomy and Physiology II
Lifetime Fitness
Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS ......................................... 24
CHEM 1311: Principles of Chemistry I
CHEM 1111: Principles of Chemistry I Lab
CHEM 1312: Principles of Chemistry II
CHEM 1112: Principles of Chemistry II Lab
PHYS 1301: College Physics I
PHYS 1101: College Physics I Lab
MATH 1316: Trigonometry
MATH 1342: Statistics
PSYC 2314: Life-Span Development Psychology
PSYC 2301: Introduction to Psychology

TOTAL .................................................................................... 66

OCCUPATIONAL THERAPY ASSISTANT
Program Advisor: Sheree Talkington, 354-6079 (talkington-sl@actx.edu) or contact the Allied Health Division, 354-6055

ASSOCIATE IN APPLIED SCIENCE
Major Code - OTHA.AAS

Upon successful completion of the Occupational Therapy Assistant program, the graduate will be qualified to work under the supervision of a registered occupational therapist to provide services to individuals of all ages who are physically, psychologically, or developmentally disabled. The program is accredited with the American Occupational Therapy Association and the Accreditation Council for Occupational Therapy Education (ACOTE). Graduates will be eligible to sit for the national certification examination administered by the National Board of Certification for Occupational Therapy (NBCOT). Upon successful completion of the certification examination, the student will be able to apply for licensure in the state of Texas or any state requiring licensure.

All of the major requirements are to be taken in a sequential order or at the advisement of the department major advisor. A grade of C or higher is required for all.

To continue in the program, a student may repeat an OTHA course only one time and may repeat no more than two OTHA courses while enrolled in the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, drop, or unsatisfactory grade. When a student completes all academic courses, fieldwork experiences must be completed within 18 months of completion or academic courses will have to be repeated.

A student seeking entry into Occupational Therapy Assistant program must file a specific program application form and complete additional admission procedures as required.

SEMESTER HOURS

GENERAL EDUCATION REQUIREMENTS* .......................... 23
Communication
ENGL 1301: Freshman Composition I
SPEECH 1318: Interpersonal Communication
Humanities/Fine Arts*
Mathematics/Natural Sciences
BIOL 2401: Human Anatomy and Physiology I
BIOL 2402: Human Anatomy and Physiology II
MATH 1333: Contemporary Mathematics (or any MATH*)
Social/Behavioral Sciences
PSYC 2301: General Psychology

MAJOR COURSE REQUIREMENTS ......................................... 45
OTHA 1160: Clinical I OTA
OTHA 1161: Clinical II
OTHA 1162: Clinical III
OTHA 1211: Occupational Performance of Maturity in OT
OTHA 1249: Life Skills Performance throughout the Lifespan
OTHA 1305: Principles of Occupational Therapy
OTHA 1309: Human Structure and Function in OT
OTHA 1341: Life Skills Performance of Childhood in OT
OTHA 1415: Therapeutic Media I in OT
OTHA 1419: Therapeutic Modalities I
OTHA 2201: Pathophysiology in OT
OTHA 2209: Mental Health in OT
OTHA 2266: Practicum I OTA
OTHA 2267: Practicum II OTA

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
OFFICE ADMINISTRATION/BUSINESS EDUCATION

Program Advisor: Delores Behrens, 371-5253 (behren-da@actx.edu) or contact the Business Division, 371-5269

ASSOCIATE IN SCIENCE

Major Code - OFAD.AS.BE

This curriculum provides basic courses for the first two years of a four-year curriculum leading to the Bachelor of Business Administration degree.

GENERAL EDUCATION REQUIREMENTS* ........................................42

Communication

ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1321: Business and Professional Speaking

Humanities/Fine Arts

Humanities

Literature*

Fine Arts*

Lifetime Fitness

Any PHED course numbered 1101-1122

Mathematics/Natural Sciences

MATH 1324: Math for Business Decisions I
Natural Sciences*

Social/Behavioral Sciences

ECON 2301 Principles of Economics I
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II

MAJOR COURSE REQUIREMENTS ......................................................9

ACCT 2301: Accounting Principles I
ACCT 2302: Accounting Principles II
ECON 2302: Principles of Economics II

RECOMMENDED COURSES .............................................................11

Students will be advised for other courses based on the University to which they plan to transfer.

TOTAL .................................................................62

OFFICE ADMINISTRATION

Program Advisor: Delores Behrens, 371-5253 (behren-da@actx.edu) or contact the Business Division, 371-5269

ASSOCIATE IN APPLIED SCIENCE

Major Code - OFAD.AAS

This curriculum is designed to prepare students for positions requiring training in office skills with options for positions as an Administrative Secretary, Legal Secretary, Medical Secretary, or Office Assistant. Students may complete a major in any of the above areas.

GENERAL EDUCATION REQUIREMENTS* ..................................15

Communication

ENGL 1301: Freshman Composition I
SPCH*

Humanities/Fine Arts*

Mathematics/Natural Sciences

MATH 1333: Contemporary Mathematics (or any MATH*)

Social/Behavioral Sciences*+

+GOVT 2306: Government of Texas must be taken as the Social or Behavioral Sciences requirement listed under General Education Requirements for Legal Secretary majors.

RELATED COURSE REQUIREMENTS ...............................................29

ITSW 2331: Advanced Word Processing
POFI 2301: Word Processing
POFT 1301: Business English
POFT 1309: Administrative Office Procedures I
POFT 1313: Professional Development for Office Personnel
POFT 1325: Business Math and Machine Applications
POFT 2203: Speed and Accuracy Building
POFT 2301: Document Formatting and Skillbuilding##
POFT 2312: Business Communications II
POFT 2333: Advanced Document Formatting and Skillbuilding

MAJOR COURSE REQUIREMENTS ...................................................23-24

Student must choose one of the following specialties:

Administrative Secretary .............................................................23-24
ITSW 1304: Introduction to Spreadsheets
POFI 2331: Desktop Publishing for the Office
POFT 1345: Shorthand/Notetaking I
POFT 2343: Shorthand/Notetaking II
POFT 2264 or POFT 2364: Practicum or Elective
ACNT 1303: Introduction to Accounting I

Legal Secretary .............................................................................23-24
BUSA 2301: Business Law I
ITSC 1309: Integrated Software Applications I
ITSW 1304: Introduction to Spreadsheets
POFI 2331: Desktop Publishing for the Office
POFL 1305: Legal Terminology
POFM 1313: Medical Terminology I
POFT 1345: Shorthand/Notetaking I
POFT 2264 or POFT 2364: Practicum or Elective

Medical Secretary ........................................................................23-24
ACNT 1303: Introduction to Accounting I
HPRS 1205: Medical Law/Ethics for Health Professionals
MDCA 1221: Administrative Procedures II
MDCA 1242: Medical Insurance I
POFT 1319: Records and Information Management I
ITSC 1309: Integrated Software Applications I
POFT 1313: Medical Terminology I
POFT 1345: Shorthand/Notetaking I
POFT 2264 or POFT 2364: Practicum or Elective

Office Assistant ............................................................................23-24
ACNT 1303: Introduction to Accounting I
BCIS 1301: Microcomputer Applications
BMGT 1301: Supervision
ITSW 1304: Introduction to Spreadsheets
POFT 1319: Records and Information Management I
ITSC 1309: Integrated Software Applications I
POFI 2331: Desktop Publishing for the Office
POFT 2264 or POFT 2364: Practicum or Elective

TOTAL .................................................................67-68

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
OFFICE ADMINISTRATION
INFORMATION MANAGEMENT
SPECIALIST

Program Advisor: Delores Behrens, 371-5253 (behrens-da@actx.edu) or contact the Business Division, 371-5269

ASSOCIATE IN APPLIED SCIENCE
Major Code - OFAD.AAS.IMS

This curriculum is designed as an advanced level program to prepare students for positions requiring skills of the administrative assistant and computer support person in an office environment.

GENERAL EDUCATION REQUIREMENTS* .................................. 15
Communication
   ENGL 1301: Freshman Composition I
   SPCH*
Humanities/Fine Arts*
Mathematics/Natural Sciences
   MATH*
Social/Behavioral Sciences*

MAJOR COURSE REQUIREMENTS .......................... 57
ACCT 2301: Accounting Principles I
ACCT 2302: Accounting Principles II
BCIS 1301: Microcomputer Applications
BCIS 1405: Business Computer Applications
COSC 1415: Programming Techniques and Logic Design I
CPMT 1347: Computer Systems Peripherals
CPMT 1349: Computer Networking Technology
ITSC 1407: UNIX Operating System I
ITSE 2409: Introduction to Database Programming
ITSW 1304: Introduction to Spreadsheets
POFT 1319: Records and Information Management I
POFI 2331: Desktop Publishing for the Office
POFT 1301: Business English
POFT 1309: Administrative Office Procedures I
POFT 2203: Speed and Accuracy Building
POFT 2312: Business Communications II
POFT 2333: Advanced Document Formatting and Skillbuilding
POFT 2264 or POFT 2364: Practicum or Elective

TOTAL ............................................................................ 71-72

OFFICE ADMINISTRATION
PROFESSIONAL CERTIFICATE

Program Advisor: Delores Behrens, 371-5253 (behrens-da@actx.edu) or contact the Business Division, 371-5269

CERTIFICATE OF COMPLETION
Major Code - OFAD.CERT.PRO

Satisfactory completion of courses listed below will enable students to receive the Office Administration Professional Certificate with Specialties. The Office Administration Professional Certificate with Specialties may be completed in fifteen months.

Upon satisfactory completion of this 15-month certificate, the student is prepared for positions requiring advanced training in specialized areas such as Administrative Secretary, Legal Secretary, Medical Secretary, or Office Assistant.

MAJOR COURSE REQUIREMENTS .......................... 29
ITSW 2331: Advanced Word Processing

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
MAJOR COURSE REQUIREMENTS ........................................32
ACNT 1303: Introduction to Accounting I - Office Personnel
ITSW 2331: Advanced Word Processing
POFI 2301: Word Processing
POFT 1301: Business English
POFT 1309: Administrative Office Procedures I
POFT 1313: Professional Development for Office Personnel
POFT 1325: Business Math and Machine Applications
POFT 2203: Speed and Accuracy Building
POFT 2301: Document Formatting and Skillbuilding##
POFT 2312: Business Communications II
POFT 2333: Advanced Document Formatting and Skillbuilding

TOTAL ........................................................................32

Student must have POFT 1329: Keyboarding and Document Formatting skills or instructor approval before enrolling in POFT 2301: Document Formatting and Skillbuilding.

OPTOMETRY
(See Biology)

PARALEGAL STUDIES
Program Advisor: Debbie Bailey, 345-5522 (bailey-d@actx.edu) or contact the Business Division, 371-5269

ASSOCIATE IN APPLIED SCIENCE
Major Code - LGLA.AAS

Upon successful completion of this program, students will be prepared to work in a law office under the direct supervision of a practicing attorney as a legal assistant and will have met the educational requirements to take the Certified Legal Assistant exam. (Work experience may be required.) A grade of C or higher is required for satisfactory completion of all Paralegal Studies (LGLA prefix) courses.
Students having education, training, or experience in word processing or keyboarding are encouraged to earn credit by examination for courses listed as RELATED COURSE REQUIREMENTS.
Paralegal Studies majors may request credit by examination for a maximum of six (6) credit hours of legal specialty courses (LGLA prefix courses only). The student must score a minimum of 75 percent on the exam to receive credit for the course. See Legal Studies Coordinator for the details.

GENERAL EDUCATION REQUIREMENTS* ..................15
Communication
ENGL 1301: Freshman Composition I
SPCH*

Humanities*
Mathematics/Natural Sciences
MATH 1333: Contemporary Mathematics or any MATH*

Social/Behavioral Sciences
PSYC*

GENERAL EDUCATION ELECTIVES .........................3
GOVT 2306: Government of Texas

or ...............................................................................
ENGL 1302: Freshman Composition II

MAJOR COURSE REQUIREMENTS ..............................41-42
LGLA 1301: Legal Research and Writing
LGLA 1307: Introduction to Law and the Legal Professions
LGLA 1309: Cognitive Skills for the Legal Profession
LGLA 1345: Civil Litigation
LGLA 1351: Contracts

RELE 1311: Law of Contracts
LGLA 1343: Bankruptcy
LGLA 1353: Wills, Trusts, and Probate Administration
LGLA 1355: Family Law
LGLA 2303: Torts and Personal Injury
LGLA 2305: Interviewing and Investigating
LGLA 2307: Law Office Management
LGLA 2313: Criminal Law and Procedure
LGLA 2335: Advanced Civil Litigation

or
LGLA 2266: Practicum - Paralegal/Legal Assistant
POFL 1305: Legal Terminology

RELATED COURSE REQUIREMENTS .........................9
ITSW 2331: Advanced Word Processing
POFI 2301: Word Processing
POFT 2301: Document Formatting and Skillbuilding

OTHER RELATED REQUIREMENTS .........................3
COSC 1301: Computer Concepts

TOTAL ........................................................................71-72

Optional course:
LGLA 1366/2366: Practicum Specialty .......................3

Real Estate Specialty Option - Paralegal Studies major choosing the Real Estate Specialty may request substitutions for selected Major Course Requirements (see Paralegal Studies Advisor)
(See Program Advisor for details.)

PARAMEDICINE
(See Emergency Medical Services Professions)

PHARMACY (PRE-PHARMACY)
Program Advisor: Dr. Harvey Hopps, 371-5334 (hopps-hb@actx.edu) or contact the Sciences and Engineering Division, 371-5091

ASSOCIATE IN SCIENCE
Major Code - PHRA.AS

Provides the requirements for the first two years of the five-year program leading to the Bachelor of Science in pharmacy. MATH 2413: 3 hours satisfy General Education Requirements; additional hour will satisfy pharmacy major transfer to four-year institutions. Most schools of pharmacy require MATH 2413: Calculus I. Texas Tech University School of Pharmacy also requires MATH 1342: Statistics.

GENERAL EDUCATION REQUIREMENTS* ..................43
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH*

Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas

Humanities/Fine Arts
Humanities*
Fine Arts*

Mathematics/Natural Sciences
MATH 2413: Calculus I
PHYS 1301: College Physics I

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
PHYS 1302: College Physics II

**Lifetime Fitness**

Any PHED course numbered 1101-1122

**MAJOR COURSE REQUIREMENTS** ........................................ 18

CHEM 2323/2223: Organic Chemistry I and Lab
CHEM 2325/2225: Organic Chemistry II and Lab
BIOL 1406: Biology I
BIOL 1407: Biology II

**RECOMMENDED COURSES** ........................................ 5

Students will be advised for other courses based on the university to which they plan to transfer.

**TOTAL** ........................................................................... 66

Recommended courses:

MATH 1342: Statistics
CHEM 1311/1111: Principles I and Lab
CHEM 1312/1112: Principles II and Lab
BIOL 2421: Microbiology
PHYS 1101: College Physics I Lab
PHYS 1102: College Physics II Lab

**PHARMACY TECHNOLOGY**

Program Advisor: Cathy Nelson, 356-3662 (nelson-mc@actx.edu) or contact the Allied Health Division, 354-6055

**CERTIFICATE OF COMPLETION**

**Major Code - PHRA.CERT**

*Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.*

Upon completion, students will be qualified to become a vital member of the Pharmacy Team. The role of the pharmacy technician continues to expand. Some of the responsibilities include interpreting prescriptions, reconstituting medications, bulk compounding and mixing of sterile parenteral and enteral products. All work is performed under the supervision of a Pharmacist.

A certification of completion is awarded upon successful completion of the curriculum. Graduates will be prepared to take the Pharmacy Technology Certification Board exam. Applications for the PTCB exam are required to have a high school diploma or GED and must have no felony convictions. All of the major requirement courses are to be taken in a sequential order or at the advisement of the department major advisor. A grade of C or higher is required for satisfactory completion of all courses in the curriculum.

To continue in the program, students may repeat a PHRA course only one time and may repeat no more than two PHRA courses while enrolled in the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, drop, or unsatisfactory grade.

Students seeking entry into Pharmacy Technology must file a specific program application form and complete additional admission procedures as required.

**MAJOR COURSE REQUIREMENTS** ........................................ 17

PHRA 1301: Introduction to Pharmacy
PHRA 1309: Pharmaceutical Mathematics
PHRA 1404: Pharmacotherapy and Disease Process
PHRA 1306: Computerized Drug Delivery System I
PHRA 1345: Intravenous Admixture and Sterile Compounding
PHRA 1166: Practicum

**PHOTOGRAPHY**

Program Advisor: Kenneth Pirtle, 371-5271 (pirtle-kd@actx.edu) or contact the Language, Communication and Fine Arts Division, 371-5267

**ASSOCIATE IN SCIENCE**

**Major Code - PHTC.AS**

Parallels the first two years of most four-year institutions offering a major in Photography. Students must provide for their own use the following equipment: camera (of design approved by instructor), light meter, flash unit and tripod. Except for certain specialized projects students will provide their own film, photographic paper and processing supplies.

**TOTAL** ........................................................................... 26

**PHOTOGRAPHY**

Program Advisor: Kenneth Pirtle, 371-5271 (pirtle-kd@actx.edu) or contact the Language, Communication and Fine Arts Division, 371-5267

**ASSOCIATE IN ARTS**

**Major Code - PHTC.AA**

Parallels the first two years of most four-year institutions offering a major in Photography. Students must provide for their own use the following equipment: camera (of design approved by instructor), light meter, flash unit and tripod. Except for certain specialized projects students will provide their own film, photographic paper and processing supplies.

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs**
GENERAL EDUCATION REQUIREMENTS* .............................................. 42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH*
Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective
Humanities/Fine Arts
Humanities*
Fine Arts*
Mathematics/Natural Sciences
MATH*
Natural Sciences*
Lifetime Fitness
Any PHED course numbered 1101-1122
MAJOR COURSE REQUIREMENTS ........................................... 15-17
ARTS 2356: Photography I
ARTS 2357: Photography II
DRAM 2366: American Cinema
Modern Language (French, German or Spanish; 6-8 hrs.)
RECOMMENDED COURSES ................................................. 6
Students will be advised for other courses based on the university to which they plan to transfer.
TOTAL ................................................................. 63-65

PHOTOGRAPHY
Program Advisor: Kenneth Pirtle, 371-5271 (pirtle-kd@actx.edu) or contact the Language, Communication and Fine Arts Division, 371-5267
ASSOCIATE IN APPLIED SCIENCE
Major Code - PHTC.AAS
Prepares students for positions in the photographic profession. Students satisfactorily completing this program will have the necessary skills and knowledge to qualify for entrance positions as darkroom technicians, commercial photographers, portrait photographers, photojournalists and general photographic technicians.
Students must provide for their own use the following equipment: camera (of design approved by instructor), light meter, flash unit and tripod. Except for certain specialized projects students will provide their own film, photographic paper and processing supplies.
TOTAL ................................................................. 42

PHOTO PRACTICUM OR ELECTIVES .......................................... 5-6

PHOTOGRAPHY
Program Advisor: Kenneth Pirtle, 371-5271 (pirtle-kd@actx.edu) or contact the Language, Communication and Fine Arts Division, 371-5267
CERTIFICATE OF COMPLETION
Major Code - PHTC.CERT
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.
For students intent on learning the skills necessary to become a professional photographer without the core curriculum course work required in the two-year Associate in Applied Science degree. Students completing the Photography Certificate program will be eligible to apply for many entry level positions as a professional photographer or lab technician. Students must provide for their own use the following equipment: camera (of design approved by instructor), light meter, flash unit and tripod. Except for certain specialized projects students will provide their own film, photographic paper and processing supplies.
TOTAL ................................................................. 42

PHYSICAL EDUCATION
Program Advisor: Craig Clifton, 371-5299 (clifton-cb@actx.edu) or contact the Behavioral Studies Division, 371-5296
ASSOCIATE IN SCIENCE
Major Code - PHED.AS

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
The physical education curriculum provides basic courses for the first two years of a four-year curriculum leading to a Bachelor of Science degree. Students should plan their program to match the specific requirements of the senior institution of choice. Programs differ significantly. Students must consult with the major advisor for course selection.

**GENERAL EDUCATION REQUIREMENTS**

**Communication**
- ENGL 1301: Freshman Composition I
- ENGL 1302: Freshman Composition II
- Speech Communication

**Social/Behavioral Sciences**
- HIST 1301: History of the U.S. I
- HIST 1302: History of the U.S. II
- GOVT 2305: Government of the U.S.
- GOVT 2306: Government of Texas
- PHED 1304: Concepts of Healthful Living

**Humanities/Fine Arts**
- Humanities*
- Fine Arts*

**Mathematics/Natural Sciences**
- MATH*
  - Natural Sciences
  - BIOL 2401: Human Anatomy and Physiology I
  - BIOL 2402: Human Anatomy and Physiology II

**Lifetime Fitness**
- Any PHED course numbered 1101-1122

**MAJOR COURSE REQUIREMENTS**

**PHED 1101: Lifetime Fitness**
**PHED 1301: Foundation of Physical Education**
**PHED 1306: Standard First Aid and CPR**
**PHED (Six additional activity courses, one of which is sophomore level)**
**HECO 1322: Principles of Nutrition**

**RECOMMENDED COURSES**

Major advisor will assist student in selection of appropriate courses required by senior institution of choice. (Must be sophomore level or courses requiring prerequisites.)

**TOTAL**

**PHYSICAL THERAPIST ASSISTANT**

Program Advisor: Kelly Jones, 354-6043 (jones-kj@actx.edu) or contact the Allied Health Division, 354-6055

**ASSOCIATE IN APPLIED SCIENCE**

Major Code - PTHA.AS

The Physical Therapist Assistant curriculum is designed to prepare the student for employment in the physical therapy clinic. The PTA graduate works under the supervision of a licensed Physical Therapist. Upon successful completion of the program the graduate is eligible to apply for state licensure. A grade of C or higher is required for satisfactory completion of all PTHA courses and any prerequisite courses.

To continue in the program, a student may repeat a PTHA course only once and may repeat no more than two PTHA courses while enrolled in the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, drop, or unsatisfactory grade.

A student seeking entry into Physical Therapist Assistant must file a specific program application form and complete additional admission procedures as required.

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs**
Mathematics/Natural Sciences
MATH 1316: Trigonometry
BIOL 1406: Biology I
BIOL 1407: Biology II

Lifetime Fitness
Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS .............................22
CHEM 1311: Principles of Chemistry I
CHEM 1111: Principles of Chemistry I Lab
CHEM 1312: Principles of Chemistry II
CHEM 1112: Principles of Chemistry II Lab
PHYS 1301: College Physics I
PHYS 1101: College Physics I Lab
PHYS 1302: College Physics II
PHYS 1102: College Physics II Lab
PSYC 2308: Child Psychology
PSYC 2319: Social Psychology

TOTAL ........................................................................64

PHYSICS
Program Advisor: Darryl Maddox, 371-5330 (maddox-dw@actx.edu) or contact the Sciences and Engineering Division, 371-5091

ASSOCIATE IN SCIENCE
Major Code - PHYS.AS
Prepares students for the junior year as a Physics major at most senior institutions. MATH 2413: 3 hours satisfy General Education Requirements; additional hour will satisfy physics major transfer to four-year institutions.

GENERAL EDUCATION REQUIREMENTS* .........................42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH*

Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective

Humanities/Fine Arts
Humanities*
Fine Arts*

Mathematics/Natural Sciences
MATH 2413: Calculus I
CHEM 1311/1111: Principles of Chemistry I
CHEM 1312/1112: Principles of Chemistry II

Lifetime Fitness
Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS .............................11
PHYS 2425/2426: Principles of Physics I and II
COSC 1317: Computer Programming for Engineers and Scientists

RECOMMENDED COURSES .....................................12
Students will be advised for other courses based on the University to which they plan to transfer.

TOTAL ........................................................................66
Optional courses:
MATH 1328: Analytic Geometry
MATH 2414: Calculus II
CHEM 2323/2223: Organic Chemistry I
CHEM 2325/2225: Organic Chemistry II
PHYS 2289/2389: Academic Cooperative in Physics

PSYCHOLOGY
Program Advisor: Jerry Moller, 371-5297 (moller-je@actx.edu) or contact the Behavioral Studies Division, 371-5296

ASSOCIATE IN SCIENCE
Major Code - PSYC.AS
The psychology curriculum provides basic courses for the first two years of a four-year curriculum leading to a Bachelor of Science in Psychology degree. Students should plan their program to match the specific requirements of the senior institution of choice. Programs differ significantly. Students must consult with the major advisor for course selection.

GENERAL EDUCATION REQUIREMENTS* .........................42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1315: Public Speaking
SPCH 1321: Business and Professional Speaking

Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
SOC 1301: Introduction to Sociology

Humanities/Fine Arts
Humanities
PHIL 1301: Introduction to Philosophy
ENGL 2331: Literature of the Non-Western World
Fine Arts
(Choose one of the following:)
HUMA 1315: Survey of Art and Music
ARTS 1303: Art History I
ARTS 1304: Art History II
MUSI 1306: Music Appreciation
DRAM 1310: Introduction to Theater

Mathematics/Natural Sciences
Math
MATH 1314: College Algebra
or .................................................................
MATH 1324: Mathematics for Business Decisions
Natural Sciences*
(Any 2 courses, 8 hours, from approved list excluding PHYS 1311/1111 and PHYS 1312-1112)

Lifetime Fitness
Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS ................................12
PSYC 2301: General Psychology
PSYC 2319: Social Psychology
PSYC 2315: Human Behavior and Personal Adjustment
(Choose one of the following:)
PSYC 2308: Child Psychology
PSYC 2314: Life Span Developmental Psychology

RELATED COURSE REQUIREMENTS ..........................6
COSC 1301: Computer Concepts
(Choose one of the following:
ENGL 2332: Literature of the Western World
ENGL 2333: Literature of the Western World

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
**RECOMMENDED COURSES** .......................................................... 3
Major advisor will assist student in selection of appropriate courses required by senior institution of choice.

**TOTAL** ..................................................................................... 63

**PUBLIC RELATIONS**
(See Mass Communication)

**RADIATION THERAPY**
Program Advisor: Tony Tackitt, 354-6063 (tackitt-tm@actx.edu) or contact the Allied Health Division, 354-6055

**ASSOCIATE IN APPLIED SCIENCE**
Major Code - RADT.AAS.RT
This program provides the basic skills required of a beginning staff radiologic technologist practicing radiation therapy. Upon satisfactory completion of the curriculum, the student will be eligible to write the national certification examination administered by the American Registry of Radiologic Technologists.

All of the major requirement courses are to be taken in a sequential order or at the advisement of the department major advisor. A grade of C or higher is required for satisfactory completion of all courses. To continue in the program, a student may repeat a RADT/RADR course only one time and may repeat no more than two RADT/RADR courses while enrolled in the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, drop, or unsatisfactory grade.

A student seeking entry into Radiation Therapy must file a specific program application form and complete additional admission procedures as required.

**GENERAL EDUCATION REQUIREMENTS** * .................................. 15
Communication
ENGL 1301: Freshman Composition I
SPCH 1318: Interpersonal Communication

Humanities/Fine Arts*
Mathematics/Natural Sciences
MATH 1333: Contemporary Mathematics (or any MATH*)

Social/Behavioral Sciences*

**MAJOR COURSE REQUIREMENTS** .......................................... 49
RADT 1142: Quality Assurance in Radiation Therapy
RADT 1267: Practicum II
RADR 1201: Introduction to Radiologic Technology
RADT 1205: Technical Procedures I
RADT 1246: Technical Procedures II
RADT 1266: Practicum I
RADT 1271: Technology Research
RADR 1317: Radiographic Anatomy and Physiology I
RADR 1318: Radiographic Anatomy and Physiology II
RADT 1401: Introduction to Radiation Therapy
RADT 2266: Practicum III
RADT 2271: Technical Procedures III
RADT 2367: Practicum IV
RADT 2366: Practicum V
RADT 2401: Oncology I
RADT 2403: Oncology II
RADT 2407: Dosimetry I
RADT 2409: Dosimetry II

**RELATED REQUIRED COURSES** ............................................. 6
POFM 1313: Medical Terminology I

**PHYS 1305: Introductory Physics**

**TOTAL** ..................................................................................... 70

**RADIOGRAPHY**
Program Advisor, Bill Crawford, 354-6070 (crawford-be@actx.edu) or contact the Allied Health Division, 354-6055

**ASSOCIATE IN APPLIED SCIENCE**
Major Code - RADR.AAS
This program provides the basic skills required of a beginning staff radiologic technologist practicing in radiography (x-ray technology). Upon satisfactory completion of the curriculum, the graduate will be eligible to write the national certification examination administered by the American Registry of Radiologic Technologists.

To continue in the program, a student may repeat a RADR course only one time and may repeat no more than two RADR courses while enrolled in the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, drop, or unsatisfactory grade. A student will have 36 months to complete all major requirements.

A grade of C or higher is required for satisfactory completion of each course.

A student seeking entry into Radiography must file a specific program application form and complete additional admission procedures as required.

**GENERAL EDUCATION REQUIREMENTS** * ............................ 15
Communication
ENGL 1301: Freshman Composition I
SPCH 1318: Interpersonal Communication

Humanities/Fine Arts*
Mathematics/Natural Sciences
MATH 1333: Contemporary Mathematics (or any MATH*)

Social/Behavioral Sciences*

**MAJOR COURSE REQUIREMENTS** .......................................... 54
RADR 1166: Practicum III
RADR 1201: Introduction to Radiography
RADR 1266: Practicum I
RADR 1267: Practicum II
RADR 1303: Patient Care
RADR 1313: Principles of Radiographic Imaging I
RADR 1317: Radiographic Anatomy and Physiology I
RADR 1318: Radiographic Anatomy and Physiology II
RADR 1411: Basic Radiographic Procedures
RADR 2217: Radiographic Pathology
RADR 2235: Radiologic Technology Seminar
RADR 2266: Practicum VI
RADR 2305: Principles of Radiographic Imaging II
RADR 2309: Radiographic Imaging Equipment
RADR 2313: Radiation Biology and Protection
RADR 2333: Advanced Medical Imaging
RADR 2366: Practicum IV
RADR 2367: Practicum V
RADR 2370: Principles of Radiologic Science
RADR 2401: Intermediate Radiographic Procedures

**RELATED REQUIRED COURSE** ................................................. 3
POFM 1313: Medical Terminology I

**TOTAL** ..................................................................................... 72

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs**
<table>
<thead>
<tr>
<th>COURSE</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL EDUCATION REQUIREMENTS</strong></td>
<td>18</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>ENGL 1301: Freshman Composition I</td>
<td></td>
</tr>
<tr>
<td>ENGL 1302: Freshman Composition II</td>
<td></td>
</tr>
<tr>
<td>SPCH *</td>
<td></td>
</tr>
<tr>
<td>Humanities/Fine Arts</td>
<td></td>
</tr>
<tr>
<td>COMM 1336: Introduction to Radio-TV Production</td>
<td></td>
</tr>
<tr>
<td>Mathematics/Natural Sciences</td>
<td></td>
</tr>
<tr>
<td>MATH 1333: Contemporary Mathematics (or any MATH*)</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td></td>
</tr>
<tr>
<td>GOVT 2306: Government of Texas</td>
<td></td>
</tr>
<tr>
<td><strong>MAJOR COURSE REQUIREMENTS</strong></td>
<td>9</td>
</tr>
<tr>
<td>COMM 1337: Television Production</td>
<td></td>
</tr>
<tr>
<td>COMM 2303: Radio Production I</td>
<td></td>
</tr>
<tr>
<td>COMM 2339: Writing for Electronic Media</td>
<td></td>
</tr>
<tr>
<td><strong>MAJOR OPTION REQUIREMENTS</strong></td>
<td>35</td>
</tr>
<tr>
<td>Student must choose one of the following options:</td>
<td></td>
</tr>
<tr>
<td><strong>BROADCAST PRODUCTION</strong></td>
<td></td>
</tr>
<tr>
<td>Major Code - RTVB.AAS.BP</td>
<td></td>
</tr>
<tr>
<td>RTVB 1447: Audio/Radio Production II</td>
<td></td>
</tr>
<tr>
<td>RTVB 2337: TV Production Workshop I</td>
<td></td>
</tr>
<tr>
<td>COMM 1307: Introduction to Mass Communication</td>
<td></td>
</tr>
<tr>
<td>COMM 2331: Announcement for Radio-Television</td>
<td></td>
</tr>
<tr>
<td>COMM 2327: Introduction to Advertising</td>
<td></td>
</tr>
<tr>
<td>COMM 1335: Survey of Electronic Media</td>
<td></td>
</tr>
<tr>
<td>COMM 2332: Broadcast News</td>
<td></td>
</tr>
<tr>
<td>RTVB 2339: Broadcast Sales</td>
<td></td>
</tr>
<tr>
<td>ARTC 1325: Introduction to Computer Graphics-Print</td>
<td></td>
</tr>
<tr>
<td>COSC 1301: Computer Concepts</td>
<td></td>
</tr>
<tr>
<td>RTVB 2164 or 2264 or 2364: Practicum</td>
<td></td>
</tr>
<tr>
<td><strong>ELECTIVES</strong></td>
<td></td>
</tr>
<tr>
<td><strong>BROADCAST SALES AND MARKETING:</strong></td>
<td></td>
</tr>
<tr>
<td>Major Code - RTVB.AAS.BSM</td>
<td></td>
</tr>
<tr>
<td>HRPO 1311: Human Relations</td>
<td></td>
</tr>
<tr>
<td>MRKG 1311: Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>MRKG 2333: Principles of Selling</td>
<td></td>
</tr>
<tr>
<td>COMM 1307: Introduction to Mass Communication</td>
<td></td>
</tr>
<tr>
<td>COMM 1335: Survey of Electronic Media</td>
<td></td>
</tr>
<tr>
<td>COMM 2327: Introduction to Advertising</td>
<td></td>
</tr>
<tr>
<td>RTVB 2339: Broadcast Sales</td>
<td></td>
</tr>
<tr>
<td>ARTC 1325: Introduction to Computer Graphics-Print</td>
<td></td>
</tr>
<tr>
<td>COSC 1301: Computer Concepts</td>
<td></td>
</tr>
<tr>
<td>RTVB 2164 or 2264 or 2364: Practicum</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>62</td>
</tr>
</tbody>
</table>

*Please see pages 44-46 for General Education Requirements and Course List

**Please see pages 9-10 for Testing Requirements for Certificate Programs
REAL ESTATE
Program Advisor: Beverly Vinson, 371-5262 (vinson-ba@actx.edu) or contact the Business Division, 371-5269

ASSOCIATE IN APPLIED SCIENCE
Major Code - RELE.AAS

Upon completion of this program, the student will have met the educational requirements for Real Estate Salesperson/ Broker licensure. Students completing this curriculum may qualify to enter a bachelor of applied arts and sciences degree program or a bachelor of general studies degree program at a four-year institution. Students seeking a Bachelor of Business Administration degree should follow the Business Administration degree plan.

GENERAL EDUCATION REQUIREMENTS* .............................................15

Communication
ENGL 1301: Freshman Composition I
SPCH*

Humanities/Fine Arts*

Mathematics/Natural Sciences
MATH 1333: Contemporary Mathematics (or any MATH*)

Social/Behavioral Sciences
ECON 2301: Principles of Economics I

MAJOR COURSE REQUIREMENTS .............................................19-22

RELE 1406: Principles of Real Estate
or ..........................................................16

RELE 1201: Principles of Real Estate I
and ..........................................................16

RELE 2209: Principles of Real Estate II
RELE 1325: Real Estate Mathematics
RELE 2201 or RELE 2301: Law of Agency
RELE 1303: Real Estate Appraisal
RELE 1211 or RELE 1311: Real Estate Contracts
RELE 1319 or RELE 1219: Real Estate Finance
RELE 1321: Real Estate Marketing

Students choosing fields of specialization other than sales or brokerage may request substitutions for selected Major Course Requirements.

MAJOR OPTIONS ..............................................................6-9

Select 6-9 hours from these courses:
RELE 1309: Real Estate Law
RELE 1315: Property Management
RELE 1307: Real Estate Investment
RELE 2331: Real Estate Brokerage
RELE 2305: Real Estate Inspections
RELE 1191: Seminar for Real Estate Assistants
RELE 1223: Real Estate Computer Application
RELE 1266 or other Practicum: Real Estate

RELATED COURSE REQUIREMENTS .............................................16

ACCT 2301: Accounting Principles I
BCIS 1405: Business Computer Applications
BCIS 1301: Microcomputer Applications
HRPO 1311: Human Relations
BMGT 1305: Communications in Management

RELATED OPTIONS ..............................................................3-6

Select 3-6 hours from these courses:
RELE 2307: Real Estate Title and Settlement
BNKG 1353: Mortgage Lending
BUSI 1301: Introduction to Business
BUSI 2301: Business Law I
BMGT 1301: Supervision
PSYC 2301: General Psychology

TOTAL .................................................................62-65

REAL ESTATE
Program Advisor: Beverly Vinson, 371-5262 (vinson-ba@actx.edu) or contact the Business Division, 371-5269

CERTIFICATE OF COMPLETION
Major Cole - RELE.CERT
Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

This program is the first year of the two-year real estate degree and serves as a stepping stone from the Salesperson Certificate toward the two-year AAS degree and meets broker requirements. Students satisfactorily completing the one-year certificate will have met the educational requirements for Real Estate Salesperson licensure.

GENERAL EDUCATION REQUIREMENTS .............................................6

ENGL 1301: Freshman Composition I
SPCH*

MAJOR COURSE REQUIREMENTS .............................................19-22

RELE 1406: Principles of Real Estate
or ..........................................................16

RELE 1201 and RELE 2209: Principles of Real Estate I, II
RELE 1325: Real Estate Mathematics
RELE 2201 or RELE 2301: Law of Agency
RELE 1303: Real Estate Appraisal
RELE 1211 or RELE 1311: Real Estate Contracts
RELE 1319 or RELE 1219: Real Estate Finance
RELE 1321: Real Estate Marketing

Students choosing fields of specialization other than sales or brokerage may request substitutions for selected Major Course Requirements.

RELATED COURSE REQUIREMENTS .............................................6-7

COSC 1301: Computer Concepts
or ..........................................................16

BCIS 1405: Business Computer Applications

Select 3 hours from these courses:
BCIS 1301: Microcomputer Applications
RELE 1309: Real Estate Law
RELE 1315: Property Management
RELE 1307: Real Estate Investment
RELE 2331: Real Estate Brokerage
RELE 2305: Real Estate Inspections
BNKG 1353: Mortgage Lending
RELE 2307: Real Estate Title and Settlement
RELE 1191: Seminar for Real Estate Assistants
RELE 1223: Real Estate Computer Application
RELE 1266 or other Practicum: Real Estate

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
ECON 2301: Principles of Economics I
MATH 1333: Contemporary Mathematics (or any MATH*)
HRPO 1311: Human Relations
PSYC 2301: General Psychology

TOTAL ..........................................................31-35

REAL ESTATE
Program Advisor: Beverly Vinson, 371-5262 (vinson-ba@actx.edu) or contact the Business Division, 371-5269

SALESPERSON CERTIFICATE
Major Code - RELE.CERT.SAL

CONTACT THE TESTING CENTER OR THE PROGRAM ADVISOR FOR TESTING REQUIREMENTS. TESTING REQUIREMENTS ARE BASED ON THE UNIQUE NEEDS OF THE CERTIFICATE PROGRAM.

This certificate is designed for those students who complete the pre-licensing courses and the Saleperson Annual Education (SAE) required by the Texas Real Estate Commission.

MAJOR COURSE REQUIREMENTS ................................10-13
RELE 1406: Principles of Real Estate
or ..............................................................
RELE 1201 and RELE 2209: Principles of Real Estate I, II
RELE 1325: Real Estate Mathematics
RELE 2201 or RELE 2301: Law of Agency
RELE 1211 or RELE 1311: Real Estate Contracts

MAJOR OR RELATED REQUIREMENTS .........................6-7
Select two courses accepted by the Texas Real Estate Commission for "Core" or "Related" credit and approved by the major advisor. Among the accepted courses are:

- RELE 1309: Real Estate Law
- RELE 1303: Real Estate Appraisal
- RELE 1315: Property Management
- RELE 1307: Real Estate Investment
- RELE 1319 or 1219: Real Estate Finance
- RELE 1321: Real Estate Marketing
- RELE 2331: Real Estate Brokerage
- RELE 2305: Real Estate Inspections
- BNKG 1353: Mortgage Lending
- RELE 2307: Real Estate Title and Settlement
- RELE 1191: Seminar for Real Estate Assistants
- RELE 1223: Real Estate Computer Application
- COSC 1301: Computer Concepts
- or ..............................................................
- BCIS 1405: Business Computer Applications
- ENGL 1301: Freshman Composition I
- ECON 2301: Principles of Economics I
- MATH 1333: Contemporary Mathematics (or any MATH*)
- HRPO 1311: Human Relations
- PSYC 2301: General Psychology
- SPCH 1318: Interpersonal Communication

TOTAL ..........................................................16-20

MORTGAGE LENDING CERTIFICATE
Major Code - RELE.CERT.MOR

CONTACT THE TESTING CENTER OR THE PROGRAM ADVISOR FOR TESTING REQUIREMENTS. TESTING REQUIREMENTS ARE BASED ON THE UNIQUE NEEDS OF THE CERTIFICATE PROGRAM.

This certificate is designed for students who desire an in-depth study of mortgage lending practices—whether as a real estate professional or as a mortgage lender.

MAJOR COURSE REQUIREMENTS ..................................12
BNKG 1353: Mortgage Lending
RELE 2307: Real Estate Lending
RELE 1303: Real Estate Appraisal
RELE 1325: Real Estate Mathematics

RELATED COURSE REQUIREMENTS ..........................3-4
COSC 1301: Computer Concepts
or ..............................................................
BNKG 1405: Business Computer Applications

TOTAL ..........................................................15-16

RELIGION
Program Advisor: John Kohler, 373-2101 or contact the Behavioral Studies Division, 371-5296

ASSOCIATE IN ARTS
Major Code - RELG.AA

This curriculum is designed to provide the freshman and sophomore foundation for a major in Religion. The Religion courses are taught through the various Bible Chairs which are operated by their respective groups for the benefit of students at Amarillo College.

GENERAL EDUCATION REQUIREMENTS* ..................42
Communication
- ENGL 1301: Freshman Composition I
- ENGL 1302: Freshman Composition II
- SPCH*

Social/Behavioral Sciences
- HIST 1301: History of the U.S. I
- HIST 1302: History of the U.S. II
- GOVT 2305: Government of the U.S.
- GOVT 2306: Government of Texas
- Social/Behavioral Sciences* Elective

Humanities/Fine Arts
- Humanities
  - PHIL 1304: Introduction to World Religions
- Fine Arts*

Mathematics/Natural Sciences
- MATH*
- Natural Sciences*

Lifetime Fitness
Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS .........................18-20
RELG 1301: The Old Testament
RELG 1302: The New Testament
RELG 2301: Life of Christ
RELG 2302: Life of Paul
GREE 1411 and 1412: Greek I and II or two Modern Language courses

RECOMMENDED COURSE ....................................3
Major advisor will assist student in selection of appropriate courses required by senior institution of choice. (Must be sophomore level or course requiring prerequisites.)

TOTAL ..........................................................63-65

RESPIRATORY CARE
Program Advisor: Bill Young, 354-6058 (young-wa@actx.edu) or contact the Allied Health Division, 354-6055

ASSOCIATE IN APPLIED SCIENCE
Major Code - RSPT.AAS

This program provides the basic skills for an individual to

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
be a competent professional practitioner of respiratory care. Completion of this program qualifies students to take examinations by the National Board for Respiratory Care. A grade of C or higher is required for satisfactory completion of all courses in the Respiratory Core Curriculum. To continue in the program, students may repeat a RSPT course only one time and may repeat no more than two RSPT courses while enrolled in the program. The term “repeat” shall be interpreted to mean re-enrollment following withdrawal, drop, or unsatisfactory grade. Each student will be required to pass a comprehensive exit examination prior to graduation.

Students seeking entry into Respiratory Care must file a specific program application form and complete additional admission procedures as required.

GENERAL EDUCATION REQUIREMENTS* ........................................... 23

Communication
ENGL 1301: Freshman Composition I

Humanities/Fine Arts*

Mathematics/Natural Sciences
BIOL 2421: Microbiology
BIOL 2401: Human Anatomy and Physiology I
MATH 1333: Contemporary Mathematics (or any MATH*)

Social/Behavioral Sciences
PSYC*

MAJOR COURSE REQUIREMENTS .............................................. 48

RSPT 1101: Introduction of Respiratory Care
RSPT 1266: Practicum I Respiratory Therapy Technician
RSPT 1167: Practicum II Respiratory Therapy Technician
RSPT 1307: Cardiopulmonary Anatomy and Physiology
RSPT 1317: Respiratory Care Pharmacology
RSPT 1340: Advanced Cardiopulmonary Anatomy and Physiology
RSPT 1391: Special Topics in Respiratory Care
RSPT 1410: Respiratory Care Procedures I
RSPT 1411: Respiratory Care Procedures II
RSPT 2166: Practicum V Respiratory Therapy Technician
RSPT 2131: Clinical-Simulations in Respiratory Care
RSPT 2139: Advanced Cardiac Life Support
RSPT 2230: Examination Preparation
RSPT 2266: Practicum III Respiratory Therapy Technician
RSPT 2267: Practicum IV Respiratory Therapy Technician
RSPT 2305: Pulmonary Diagnostics
RSPT 2310: Cardiopulmonary Disease
RSPT 2314: Mechanical Ventilation
RSPT 2353: Neonatal/Pediatric Cardiopulmonary Care
RSPT 2358: Advanced Respiratory Care Patient Assessment

TOTAL ................................................................. 71

ROBOTICS TECHNOLOGY
(SEE INSTRUMENT CONTROL TECHNOLOGY)

SAFETY AND ENVIRONMENTAL TECHNOLOGY
Program Advisor: Sandy Jefferson, 335-4230 (jefferson-sm@actx.edu) or contact the Safety and Environmental Technology Program, 335-4274

ASSOCIATE IN APPLIED SCIENCE
Major Code - EPCT.AAS

*Please see pages 44-46 for General Education Requirements and Course List

Trains technicians to resolve safety and environmental issues. Concentrates on the following technical areas, safety, environmental monitoring, governmental regulations and agencies, solid hazardous waste management, chemical control, waste water, landfill management, and the transporting of hazardous materials.

GENERAL EDUCATION REQUIREMENTS* ................................... 30

Communication
ENGL 1301: Freshman Composition I

Humanities/Fine Arts*

Mathematics/Natural Sciences
CHEM 1111: Principles of Chemistry I
CHEM 1111: Principles of Chemistry I Lab
MATH 1314: College Algebra

Social/Behavioral Science*

MAJOR COURSE REQUIREMENTS .............................................. 43

ENGL 2311: Technical Writing
EPCT 1307: Introduction to Environmental Safety and Health
EPCT 1311: Introduction to Environmental Science
OSHT 2374: Instruments and Measures
EPCT 2333: Environmental Toxicology
EPCT 1401: Hazardous Waste Operations and Emergency Response (Hazwoper) Training and Related Topics
COSC 1301: Computer Concepts
EPCT 1305: Environmental Regulations Interpretation and Applications
EPCT 1317: Environmental Geology
EPCT: 1340: Industrial Chemical Processing
EPCT 1344: Environmental Sampling and Analysis
EPCT 1343: Treatment, Remediation, and Disposal Techniques
SCIT 1302: Subsurface Hydrology I
Elective

MAJOR ELECTIVES .......................................................... 6-8

Students must select two of the following courses:
OSHT 1405: OSHA Regulations - Construction Industry
OSHT 2401: OSHA Regulations - General Industry
OSHT 2372: Health Physics I
OSHT 2373: Health Physics II
OSHT 2376: Management of Radioactive Materials and Radiation Generating Devices
EPCT 1341: Principles of Industrial Hygiene
EPCT 2331: Industrial Hygiene Applications
EPCT 1313: Contingency Planning

(Note: Internship course EPCT 2388 may replace other Hazardous Material Technology courses upon approval of Department Advisor. EPCT 2398 Internship may be taken for additional credit.)

TOTAL ................................................................. 68-70

SAFETY AND ENVIRONMENTAL TECHNOLOGY
Program Advisor: Sandy Jefferson, 335-4230 (jefferson-sm@actx.edu) or contact the Safety and Environmental Technology Program, 335-4274

CERTIFICATE OF COMPLETION
Major Code - EPCT.CERT

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

*Please see pages 4-9 for Testing Requirements for Certificate Programs
Prepare students as assistants to industrial hygienists or handlers of hazardous materials. Aimed at the hazardous materials industry with emphasis on hands-on technology.

**GENERAL EDUCATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301: Freshman Composition I</td>
<td></td>
</tr>
</tbody>
</table>

**MAJOR COURSE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPCT 1307: Introduction to Environmental Safety and Health</td>
<td></td>
</tr>
<tr>
<td>EPCT 1311: Introduction to Environmental Science</td>
<td></td>
</tr>
<tr>
<td>OSHT 2374: Instruments and Measures</td>
<td></td>
</tr>
<tr>
<td>EPCT 2333: Environmental Toxicology</td>
<td></td>
</tr>
<tr>
<td>EPCT 1401: Hazardous Waste Operations and Emergency Response (Hazwoper) Training and Related Topics</td>
<td></td>
</tr>
<tr>
<td>OSHT 2401: OSHA Regulations - General Industry</td>
<td></td>
</tr>
<tr>
<td>EPCT 1305: Environmental Regulations Interpretation and Applications</td>
<td></td>
</tr>
<tr>
<td>EPCT 1344: Environmental Sampling and Analysis</td>
<td></td>
</tr>
</tbody>
</table>

**MAJOR ELECTIVES**

- Students must select two of the following courses:
  - OSHT 1405: OSHA Regulations - Construction Industry
  - OSHT 2372: Health Physics I
  - OSHT 2373: Health Physics II
  - OSHT 2376: Management of Radioactive Materials and Radiation Generating Devices

- EPCT 2331: Industrial Hygiene Applications
- EPCT 1313: Contingency Planning
- EPCT 1317: Environmental Geology
- EPCT 1341: Principles of Industrial Hygiene
- EPCT 2388: Internship
- EPCT 2389: Internship
- SCIT 1302: Subsurface Hydrology I

**TOTAL**

- 6-8 credits

**SAFETY and ENVIRONMENTAL TECHNOLOGY - ENVIRONMENTAL CHEMICAL TECHNOLOGY**

**Major Code - EPCT.CERT.CHEM**

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

Prepares students to work as an environmental chemical technician handling agricultural chemicals for farm and/or industrial applications. Aimed at the agricultural industry with an emphasis on hand-on technology.

**MAJOR COURSE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELMT 1305: Basic Fluid Power</td>
<td></td>
</tr>
<tr>
<td>AGME 1308: Agricultural Parts and Products I</td>
<td></td>
</tr>
<tr>
<td>EPCT 1313: Contingency Planning</td>
<td></td>
</tr>
<tr>
<td>AGCR 2301: Agricultural Chemicals</td>
<td></td>
</tr>
<tr>
<td>CHEM 1305: Introductory Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 1105: Introductory Chemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 1419: Introductory Organic Chemistry</td>
<td></td>
</tr>
<tr>
<td>DEMR 1406: Diesel Engine I</td>
<td></td>
</tr>
<tr>
<td>AGCR 2319: Fertilizer and Soil Fertility</td>
<td></td>
</tr>
<tr>
<td>GEOL 1473: Introduction to Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>COSC 1301: Computer Concepts</td>
<td></td>
</tr>
<tr>
<td>BIOL 1406: Biology I</td>
<td></td>
</tr>
<tr>
<td>EPCT 1266: Practicum</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**

- 42 credits

**SOCIAL SCIENCE**

Program Advisor: Dr. Brian Farmer, 371-5193 (farmer-br@actx.edu) or contact the Behavioral Studies Division, 371-5296.

**ASSOCIATE IN SCIENCE**

**Major Code - SOCS.AS**

Students planning to major in one of the social sciences are advised to consult the catalog of the college to which they will transfer and plan their program of study accordingly. The curriculum listed here is designed to provide a foundation for any social science discipline; however, each student should contact the social science advisor at the earliest possible time so that a degree plan can be completed which will insure the proper course selection for the discipline of choice.

**GENERAL EDUCATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301: Freshman Composition I</td>
<td></td>
</tr>
<tr>
<td>ENGL 1302: Freshman Composition II</td>
<td></td>
</tr>
<tr>
<td>Speech Communication*</td>
<td></td>
</tr>
</tbody>
</table>

**Social/Behavioral Sciences**

- HIST 1301: History of the U.S. I
- HIST 1302: History of the U.S. II
- GOVT 2305: Government of the U.S.
- GOVT 2306: Government of Texas
- Social/Behavioral Sciences* Elective

**Humanities/Fine Arts**

- Humanities
  - ENGL 2322: Masterworks of English Literature
  - Fine Arts*

**Mathematics/Natural Sciences**

- MATH*
- Natural Sciences*

**Lifetime Fitness**

Any PHED course numbered 1101-1122

**RELATED COURSE REQUIREMENT**

- 3 credits

**RECOMMENDED COURSES**

- 17-21 credits

Students will be advised on all recommended courses based upon specific Social Science major required by the catalog at the university where student intends to transfer. (One of which will be sophomore level or courses requiring prerequisites.)

**TOTAL**

- 62-66 credits

**SOCIAL WORK**

Program Advisor: Jerry Moller, 371-5292 (moller-je@actx.edu) or contact the Behavioral Studies Division, 371-5296.

**ASSOCIATE IN SCIENCE**

**Major Code - SOCW.AS**

This curriculum provides basic courses for the first two years of a four year curriculum leading to a degree of Bachelor of Science in Social Work. Students should plan their program to match the specific requirements of the senior institution of choice. Programs differ significantly. Students must consult with the major advisor for course selection.

**GENERAL EDUCATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301: Freshman Composition I</td>
<td></td>
</tr>
<tr>
<td>ENGL 1302: Freshman Composition II</td>
<td></td>
</tr>
<tr>
<td>Speech Communication*</td>
<td></td>
</tr>
</tbody>
</table>

**Semester Hours**
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1315: Public Speaking
or .................................................................
SPCH 1321: Business and Professional Speaking

Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
PSYC 2301: General Psychology

Humanities/Fine Arts
Humanities
ENGL 2331: Literature of the Non-Western World
or
PHIL 1301: Introduction to Philosophy
Fine Arts
Choose one course from the following list:
HUMA 1315: Survey of Art and Music
ARTS 1303: Art History I
ARTS 1304: Art History II
MUSI 1306: Music Appreciation
DRAM 1310: Introduction to Theater

Mathematics/Natural Sciences
Math
MATH 1314: College Algebra
or
MATH 1324: Mathematics for Business Decisions I
Natural Sciences
BIOL 1308/1108: Life Science I/Lab and
BIOL 1309/1109: Life Science II/Lab
or
BIOL 1406: General Biology I and
BIOL 1407: General Biology II
or
BIOL 1413: Zoology and
BIOL 1411: Botany

Lifetime Fitness
Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS ......................12
SOCI 1301: Introduction to Sociology
SOCI 1306: Modern Social Problems
SOCI 2361: Introduction to Social Work
PSYC 2315: Human Behavior and Personal Adjustment

RELATED COURSE REQUIREMENTS ....................6
COSC 1301: Computer Concepts
Choose one of the following:
ENGL 2332: Literature of the Western World
ENGL 2333: Literature of the Western World

RECOMMENDED COURSES ..............................3
Major advisor will assist student in selection of appropriate
courses required by senior institution of choice.

TOTAL .........................................................63

SPEECH COMMUNICATION
Program Advisor: Robert Boyd, 371-5232 (boyd-re@actx.
edu) or contact the Language, Communication and Fine
Arts Division, 371-5267

ASSOCIATE IN ARTS
Major Code - SPCH.AA

GENERAL EDUCATION REQUIREMENTS* ............42

*Please see pages 44-46 for General Education Requirements and Course List

Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1315: Public Speaking

Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective

Humanities/Fine Arts
Humanities*
Fine Arts*

Mathematics/Natural Sciences
MATH*
Natural Sciences*

Lifetime Fitness
Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS ......................15-17
SPCH 1318: Interpersonal Communication
SPCH 1342: Voice and Diction
SPCH 2341: Oral Interpretation
Modern Language (French, German or Spanish; 6-8 hours)

RECOMMENDED COURSES ..............................3-6
The student will be advised for other courses based on the
university to which he/she plans to transfer.

TOTAL .........................................................62-63

SPEECH COMMUNICATION
Program Advisor: Robert Boyd, 371-5232 (boyd-re@actx.
edu) or contact the Language, Communication and Fine
Arts Division, 371-5267

ASSOCIATE IN SCIENCE
Major Code - SPCH.AS

GENERAL EDUCATION REQUIREMENTS* ............42

Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1315: Public Speaking

Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas
Social/Behavioral Sciences* Elective

Humanities/Fine Arts
Humanities*
Fine Arts*

Mathematics/Natural Sciences
MATH*
Natural Sciences*

Lifetime Fitness
Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS ......................9
SPCH 1318: Interpersonal Communication
SPCH 1342: Voice and Diction
SPCH 2341: Oral Interpretation

RECOMMENDED COURSES ..............................12
The student will be advised for other courses based on the
university to which he/she plans to transfer.

TOTAL .........................................................63

**Please see pages 9-10 for Testing Requirements for Certificate Programs
SUBSTANCE ABUSE COUNSELING

Program Advisor: Dr. Bob Banks, 371-5338 (banks-re@actx.edu) or contact the Behavioral Studies Division, 371-5296

ASSOCIATE IN APPLIED SCIENCE
Major Code - DAAC.AAS

This two-year program is designed to prepare individuals for a career as a substance abuse counselor. The program will provide AAS graduates and those exiting with a certificate the educational components required to be licensed by the Texas Commission on Alcohol and Drug Abuse (TCADA).

GENERAL EDUCATION REQUIREMENTS* .................................. 29
Communications
- ENGL 1301: Freshman Composition I
- ENGL 1302: Freshman Composition II
- SPCH 1318: Interpersonal Communication

Humanities/Fine Arts
- SOCI 2319: Minority Studies

Social/Behavioral Sciences
- GOVT 2306: Government of Texas
- PSYC 2301: General Psychology

Mathematics/Natural Sciences
- MATH 1333: Contemporary Mathematics (or any MATH*)
- BIOL 1308/1108: Life Science I/II and
  BIOL 1309/1109: Life Science II/II
  or........................................................................................................
- BIOL 1411: Botany and
- BIOL 1413: Zoology
  or........................................................................................................
- BIOL 2401: Human Anatomy and Physiology and
  BIOL 2402: Human Anatomy and Physiology II

MAJOR COURSE REQUIREMENTS ..................................... 31
DAAC 1304: Pharmacology of Addiction
DAAC 1307: Addicted Family Intervention
DAAC 1311: Counseling Theories
DAAC 1314: Dynamics of Group Counseling
DAAC 1317: Basic Counseling Skills
DAAC 1319: Introduction to Alcohol and Other Drug Addictions
DAAC 1341: Counseling Alcohol and Other Drug Addictions
DAAC 1343: Current Issues
DAAC 1391: Special Topics in Alcohol/Drug Abuse Counseling
DAAC 2266: Practicum I
DAAC 2267: Practicum II

RELATED REQUIRED COURSE ......................................... 3
COSC 1301: Computer Concepts

TOTAL ................................................................................... 63

SUBSTANCE ABUSE COUNSELING

Program Advisor: Dr. Bob Banks, 371-5338 (banks-re@actx.edu) or contact the Behavioral Studies Division, 371-5296

CERTIFICATE OF COMPLETION
Major Code - DAAC.CERT

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

The student may either receive a certificate in substance abuse counseling at the completion of 36 semester hours or an associate degree in Substance Abuse Counseling upon completion of 65 semester hours. Graduates with a certificate will have the educational components required to be licensed by the Texas Commission on Alcohol and Drug Abuse (TCADA).

GENERAL EDUCATION REQUIREMENTS* .................. 29
Communications
- ENGL 1301: Freshman Composition I
- SPCH 1318: Interpersonal Communication

Humanities/Fine Arts*

Mathematics/Natural Sciences
- BIOL 2401: Human Anatomy and Physiology I
- BIOL 2402: Human Anatomy and Physiology II
- MATH 1333: Contemporary Mathematics (or any MATH*)

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
Social/Behavioral Sciences
HIST 1301: History of the U.S. I
PSYC 2301: General Psychology
SOCI 1301: Introduction to Sociology

MAJOR COURSE REQUIREMENTS ......................... 25
SRGT 1261: Clinical I
SRGT 1405: Introduction to Surgical Technology
SRGT 1409: Fundamentals of Aseptic Technique
SRGT 1441: Surgical Procedures I
SRGT 1442: Surgical Procedures II
SRGT 2360: Clinical III
SRGT 2461: Clinical II

RELATED REQUIRED COURSES ......................... 6
COSC 1301: Computer Concepts
POFM 1313: Medical Terminology I

ELECTIVE .................................................. 3

TOTAL ..................................................... 63

SURGICAL TECHNOLOGY
Program Advisor: Kelly Elis, 354-6663 (ellis-kd@actx.edu) or contact the Allied Health Division, 354-6055

CERTIFICATE OF COMPLETION
Major Code - SRGT.CERT

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

Upon completion, graduates will be qualified to be an essential member of the surgical team.

A certificate of completion is awarded upon successful completion of the curriculum. Major requirement courses are to be taken in sequential order. Students who fail to do so will be required to reapply for acceptance into the program and repeat all courses.

Graduates are eligible to write the National Certification Examination to become a Certified Surgical Technologist (CST). A grade of C or higher is required for satisfactory completion of all courses in the curriculum.

Students seeking entry into Surgical Technology must file a specific program application form and complete additional admission procedures as required.

MAJOR COURSE REQUIREMENTS ......................... 25
SRGT 1261: Clinical I
SRGT 1405: Introduction to Surgical Technology
SRGT 1409: Fundamentals of Aseptic Technique
SRGT 1441: Surgical Procedures I
SRGT 1442: Surgical Procedures II
SRGT 2360: Clinical III
SRGT 2461: Clinical II

RELATED REQUIRED COURSES ......................... 11
POFM 1313: Medical Terminology I
BIOL 2401: Human Anatomy and Physiology I
BIOL 2402: Human Anatomy and Physiology II

TOTAL ..................................................... 36

THEATRE
Program Advisor: Lynae Jacob, (jacoby-l@actx.edu) Speech and Theatre Department, 371-5343

ASSOCIATE IN SCIENCE
Major Code - THEA.AS

GENERAL EDUCATION REQUIREMENTS* ............... 42
Communication
ENGL 1301: Freshman Composition I
ENGL 1302: Freshman Composition II
SPCH 1315: Public Speaking

Social/Behavioral Sciences
HIST 1301: History of the U.S. I
HIST 1302: History of the U.S. II
GOVT 2305: Government of the U.S.
GOVT 2306: Government of Texas

Humanities/Fine Arts
Humanities
Literature*

Fine Arts
DRAM 1310: Introduction to Theatre

Mathematics/Natural Sciences
MATH*
Natural Sciences*

Lifetime Fitness
Any PHED course numbered 1101-1122

MAJOR COURSE REQUIREMENTS ......................... 22
DRAM 1322: Stage Movement
DRAM 1330: Stagecraft I
DRAM 1351: Acting I
DRAM 1352: Acting II
DRAM 1120: Theatre Practicum
DRAM 1121: Theatre Practicum
DRAM 2120: Theatre Practicum
DRAM 2121: Theatre Practicum
SPCH 1342: Voice and Diction

or ...........................................................................
SPCH 2341: Oral Interpretation
Select one of the following courses:
DRAM 1341: Stage Make-up
DRAM 1342: Introduction to Costume
DRAM 2331: Stagecraft II or any course approved by advisor

TOTAL ..................................................... 64

TRAVEL AND TOURISM
Program Advisor: Catheryne Lankford, 371-5263 (lankford-cr@actx.edu) or Anne Nail, 371-5265 (nail-ah@actx.edu) or contact the Business Division, 371-5269

ASSOCIATE IN APPLIED SCIENCE
Major Code - TRVM.AAS

GENERAL EDUCATION REQUIREMENTS* ............... 15
Communication
ENGL 1301: Freshman Composition I
SPCH*

*Please see pages 44-46 for General Education Requirements and Course List
**Please see pages 9-10 for Testing Requirements for Certificate Programs
Humanities/Fine Arts*
Mathematics/Natural Sciences
MATH 1333: Contemporary Mathematics (or any MATH*)
Social/Behavioral Sciences
ECON 2301: Principles of Economics I

MAJOR COURSE REQUIREMENTS .........................27
TRVM 1300: Introduction to Travel and Tourism
TRVM 1308: Travel Destination I - Western Hemisphere
TRVM 1341: Travel Destination II - Eastern Hemisphere
TRVM 1313: Ticketing Forms and Procedures
TRVM 1406: Travel Automation I
TRVM 2435: Travel Automation II
TRVM 1101: Customer Sales and Service
TRVM 1331: Introduction to Hospitality Industry
TRVM 2302: Travel Career Development

RELATED COURSE REQUIREMENTS ......................27-30
HRPO 1311: Human Relations
BMGT 1301: Supervision
BMGT 1305: Communications in Management
BMGT 1373: Professional Image Development
COSC 1301: Computer Concepts
ACCT 2301: Accounting Principles I
MRKG 1311: Principles of Marketing
MRKG 2322: Principles of Selling
Students will select 3-6 hours from the following:
BUSG 1315: Small Business Operations
BUSG 2309: Small Business Management–Entrepreneurship
BMGT 1303: Principles of Management
TRVM 1380: Cooperative Education–Travel and Tourism

TOTAL .........................................................69-72

TRAVEL AND TOURISM
Program Advisor: Catheryne Lankford, 371-5263 (lankford-cr@actx.edu) or Anne Nail, 371-5265 (nail-ah@actx.edu) or contact the Business Division, 371-5269

CERTIFICATE OF COMPLETION
Major Code - TRVM.CERT

CONTACT THE TESTING CENTER OR THE PROGRAM ADVISOR FOR TESTING REQUIREMENTS. TESTING REQUIREMENTS ARE BASED ON THE UNIQUE NEEDS OF THE CERTIFICATE PROGRAM. FOR STUDENTS WHO MAY NOT WISH TO ATTEND SCHOOL FOR TWO YEARS BUT WHO WISH TO GAIN A GENERAL LIMITED BACKGROUND REQUIRED FOR MANY ENTRY LEVEL BUSINESS-RELATED POSITIONS.

RELATED COURSE REQUIREMENTS ....................6
ENGL 1301: Freshman Composition I
COSC 1301: Computer Concepts

MAJOR COURSE REQUIREMENTS .......................36
TRVM 1300: Introduction to Travel and Tourism
TRVM 1308: Travel Destination I - Western Hemisphere
TRVM 1341: Travel Destination II - Eastern Hemisphere
TRVM 1313: Ticketing Forms and Procedures
TRVM 1406: Travel Automation I
TRVM 2435: Travel Automation II
TRVM 1101: Customer Sales and Service
TRVM 1331: Introduction to Hospitality Industry
TRVM 2302: Travel Career Development
HRPO 1311: Human Relations
BMGT 1305: Communications in Management
BMGT 1373: Professional Image Development

TOTAL .........................................................42

HOSPITALITY CERTIFICATE
Major Code - TRVM.CERT.HOSP

CONTACT THE TESTING CENTER OR THE PROGRAM ADVISOR FOR TESTING REQUIREMENTS. TESTING REQUIREMENTS ARE BASED ON THE UNIQUE NEEDS OF THE CERTIFICATE PROGRAM. FOR STUDENTS WHO WISH TO GAIN A BASIC UNDERSTANDING OF THE HOSPITALITY SEGMENT OF THE TRAVEL AND TOURISM INDUSTRY.

TRVM 1101: Customer Sales and Service
HRPO 1311: Human Relations
BMGT 1301: Supervision
BMGT 1305: Communications in Management
TRVM 1300: Introduction to Travel and Tourism
TRVM 1331: Introduction to Hospitality Industry

TOTAL .........................................................16

VETERINARY MEDICINE
(See Biology)

WELDING TECHNOLOGY
Program advisor: Jay Anders, 335-4398 (anders-jc@actx.edu) or contact the Manufacturing Technologies Department, 335-4390

CERTIFICATES OF COMPLETION
Major Code - BELOW

CONTACT THE TESTING CENTER OR THE PROGRAM ADVISOR FOR TESTING REQUIREMENTS. TESTING REQUIREMENTS ARE BASED ON THE UNIQUE NEEDS OF THE CERTIFICATE PROGRAM.

BASIC WELDING
Major Code - WELD.CERT.BAS

PREPARES STUDENTS FOR ENTRY LEVEL POSITIONS IN FABRICATION AND GENERAL REPAIR SHOPS.

MAJOR CORE REQUIREMENTS .........................16
DFTG 1425: Blueprint Reading and Sketching
WLDG 1417: Introduction to Layout and Fabrication
WLDG 1428: Introduction to Shielded Metal Arc Welding (SMAW)
WLDG 2439: Advanced Oxy-Fuel Welding and Cutting

TOTAL .........................................................16

ADVANCED WELDING
Major Code - WELD.CERT.ADV

PREPARES STUDENTS FOR WORK IN PRODUCTION AND MAINTENANCE FACILITIES.

Basic Welding Certificate ..16

MAJOR COURSE REQUIREMENTS .......................16
WLDG 1457: Intermediate Shielded Metal Arc Welding (SMAW)
WLDG 2406: Intermediate Pipe Welding
WLDG 2447: Advanced Gas Metal Arc Welding (GMAW) (MIG)
WLDG 2451: Advanced Gas Tungsten Arc Welding (GTAW)

TOTAL .........................................................32

*Please see pages 44-46 for General Education Requirements and Course List **Please see pages 9-10 for Testing Requirements for Certificate Programs
Course Descriptions

ACCOUNTING

ACCT 2301*: Accounting Principles I
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331.
(3 sem hrs; 3 lec) (ACCTG 4313)#

ACCT 2302*: Accounting Principles II
Prerequisite: ACCT 2301
A study of the fundamentals of managerial accounting. Emphasis on accounting for a manufacturing concern, budgeting, planning, management decision making, and analysis of financial reports.
(3 sem hrs; 3 lec) (ACCTG 4323)#

ACNT 1311: Introduction to Computerized Accounting
Prerequisites: ACCT 2301, BCIS 1405
Introduction to utilizing the computer in maintaining accounting records, making management decisions, and processing common business applications with primary emphasis on a general ledger package.
(3 sem hrs; 2 lec, 2 lab) (ACCTG 4333)#

ACNT 1329: Payroll and Business Tax Accounting
Prerequisite: ACCT 2301
A study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment.
(3 sem hrs; 3 lec) (ACCTG 4353)#

ACNT 2303: Intermediate Accounting I
Prerequisites: ACCT 2301, ACCT 2302
Critical analysis of generally accepted accounting principles, concepts, and theory underlying the preparation of financial statements. Emphasis on current theory and practice.
(3 sem hrs; 3 lec) (ACCTG 4343)#

ACNT 2309: Cost Accounting
Prerequisite: ACCT 2302
A study of budgeting and cost control systems including a detailed study of manufacturing cost accounts and reports, job order costing, and process costing. Includes introduction to alternative costing methods such as activity-based and just-in-time costing.
(3 sem hrs; 3 lec) (ACCTG 4363)#

ACNT 1266: Practicum - Accounting
Prerequisite: Consent of program advisor
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study. The guided external experiences may be paid or unpaid.
(2 sem hrs; 20 hrs work/week)
ACNT 1366: Practicum - Accounting  
*Prerequisite: Consent of program advisor*  
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study. The guided external experiences may be paid or unpaid.  
(3 sem hrs; 30 hrs work/week)

ALLIED HEALTH  
SPNL 1201: Health Care Spanish  
Development of practical Spanish communication skills for the health care employee including medical terminology, greetings, common expressions, commands, and phrases normally used within a hospital or physician’s office.  
(2 sem hrs; 2 lec) (AH 3001)  
***POFM 1313: Medical Terminology I***  
Instruction in the practical application of a medical vocabulary. Topics include structure; recognition; analysis; definitions; spelling; pronunciation; and combination of medical terms from prefixes, suffixes, roots, and combining forms.  
(3 sem hrs; 3 lec) (AH 3013)  
***POFM 2323: Medical Terminology II***  
*Prerequisite: POFM 1313*  
A continuation of Medical Terminology I including structure; recognition; analysis; definitions; spelling; pronunciation; and combination of medical terms from prefixes, suffixes, roots and combining forms. Emphasis on various medical specialty fields.  
(3 sem hrs; 3 lec) (AH 4023)  

ANTHROPOLOGY  
ANTH 2346: General Anthropology and the Humanities  
*Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331.*  
A cross-cultural study of art, music, literature, and religion in world cultures across time. The course focuses on diversity in the production of human culture, behavior, social institutions, and artistic expression.  
(3 sem hrs; 3 lec)  
***ANTH 2351*: Cultural Anthropology***  
*Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331.*  
Introduces the major sub-fields of cultural and physical anthropology, including archaeology and linguistics. Presents key concepts in the study of cultural diversity, social institutions, and culture change among world peoples.  
(3 sem hrs; 3 lec) (ANTHR 4323)  

ARCHITECTURE  
ARCH 2201*: Design Communication I  
The development of visual perception and graphic communication utilizing an intensive investigation of freehand drawing.  
(2 sem hrs; 1 lec, 3 lab) (ARCH 3102)  
ARCH 2202*: Design Communication II  
*Prerequisite: ARCH 2201 with a grade of C or higher*  
A continuation of ARCH 2201 with emphasis on refined technique and more complex drawing problems.  
(2 sem hrs; 1 lec, 3 lab) (ARCH 3112)  

ART  
ARTS 1301*: Art Appreciation  
Study of the artistic styles and visual elements in order to increase understanding and enjoyment of art.  
(3 sem hrs; 3 Lec)  
ARTS 1303*: Art History I  
A survey of painting, sculpture, architecture, and the minor arts from prehistoric times to the 14th Century.  
(3 sem hrs; 3 Lec)  
ARTS 1304*: Art History II  
A survey of painting, sculpture, architecture, and the minor arts from the 14th Century to the present.  
(3 sem hrs; 3 Lec)  
ARTS 1311*: Design I  
Emphasis on two-dimensional design, including the fundamental elements and principles of line, color, texture, shape, space, form, and unity.  
(3 sem hrs; 6 Studio)  
ARTS 1312*: Design II  
Emphasis on three-dimensional (sculptural) design concepts, materials, and techniques.  
(3 sem hrs; 6 Studio)  
ARTS 1316*: Drawing I  
Investigation of a variety of media, techniques, and subjects. Exploration of perceptual and descriptive possibilities with consideration of drawing as a developmental process as well as an end in itself. Regular outside assignments.  
(3 sem hrs; 6 Studio)  
ARTS 1317*: Drawing II  
*Prerequisite: ARTS 1316*  
Expansion of ARTS 1316 stressing the expressive and conceptual aspects of drawing, including the human figure within a spatial environment. Regular outside assignments.  
(3 sem hrs; 6 Studio)  
ARTS 2313*: Design Communication I  
An introductory course in processing and techniques of communication design, with emphasis on illustration. Regular outside assignments.  
(3 sem hrs; 6 Studio)  
ARTS 2314*: Design Communication II  
*Prerequisite: ARTS 2313*  
A further investigation of communication design techniques. Regular outside assignments.  
(3 sem hrs; 6 Studio)  
ARTS 2316*: Painting I  
*Prerequisites: ARTS 1311, ARTS 1317*  
Exploration of the potentials of painting media with emphasis on color and composition. Regular outside assignments.  
(3 sem hrs; 6 Studio)  
ARTS 2317*: Painting II  
*Prerequisite: ARTS 2316*  
Continuation of ART 4033 with emphasis on individual expression and techniques. Regular outside assignments.  
(3 sem hrs; 6 Studio)
ARTS 2323*: Drawing III  
Prerequisite: ARTS 1317  
A life drawing course emphasizing structure and action of the human figure. Regular outside assignments.  
(3 sem hrs; 6 Studio)

ARTS 2324*: Drawing IV  
Prerequisite: ARTS 2323  
Continuation of ARTS 2323 with emphasis on individual expression. Regular outside assignments.  
(3 sem hrs; 6 Studio)

ARTS 2326*: Sculpture I  
Prerequisites: ARTS 1312, ARTS 1317  
Investigation of various sculptural design concepts, materials, and techniques. Regular outside assignments.  
(3 sem hrs; 6 Studio)

ARTS 2327*: Sculpture II  
Prerequisite: ARTS 2326  
A life drawing course emphasizing structure and action of the human figure. Regular outside assignments.  
(3 sem hrs; 6 studio)

ARTS 2333*: Printmaking I  
Prerequisites: ARTS 1311, ARTS 1317 with a grade of C or higher or consent of department chair  
Introduction to basic printmaking processes and techniques of woodcut, linocut, drypoint and etching. Regular outside assignments.  
(3 sem hrs; 6 studio)

ARTS 2341*: Jewelry I  
Prerequisites: ARTS 1312, ARTS 1317  
Exploration of design, construction, and form utilizing basic jewelry techniques. Regular outside assignments.  
(3 sem hrs; 6 studio) (ART 4213)#

ARTS 2342*: Jewelry II  
Prerequisite: ARTS 2341  
A further investigation of design, construction and forming, and advanced techniques. Regular outside assignments.  
(3 sem hrs; 6 studio)

ARTS 2346*: Ceramics I  
Introduction to basic ceramic techniques, glazing, and firing from a fine art viewpoint. Regular outside assignments.  
(3 sem hrs; 6 studio)

ARTS 2347*: Ceramics II  
Prerequisite: ARTS 2346  
Continuation of ARTS 2346 with emphasis on design and glazing. Regular outside assignments.  
(3 sem hrs; 6 studio)

ARTS 2356*: Fundamentals of Photography I  
Negative exposure and development, basic enlarging, composition, darkroom technique, flash exposure, and use of exposure meter and filters; elementary instruction.  
(3 sem hrs; 2 lec, 3 lab)  
Note: Students completing ARTS 2356 cannot earn credit for COMM 1318.

ARTS 2357*: Fundamentals of Photography II  
Prerequisite: ARTS 2356  
Advanced exposure and printing techniques. Proper use of the Zone System, archival printing, toning, printing for maximum quality. Use of the 4 X 5 camera.  
(3 sem hrs; 2 lec, 3 lab)

ARTS 2366*: Watercolor I  
Prerequisites: ARTS 1311, ARTS 1317  
Investigation of watercolor painting techniques. Regular outside assignments.  
(3 sem hrs; 6 studio)

ARTS 2367*: Watercolor II  
Prerequisite: ARTS 2366  
A further investigation of watercolor painting techniques with emphasis on individual expression.  
(3 sem hrs; 6 studio)

ARTC 1166, 1266, 1366: Graphic Design Practicum  
A basic or intermediate type of non-health professions work-based instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work supervisor. A practicum may be a paid or unpaid learning experience.  
(1 hr credit per 10 hrs of work)

ARTC 1305: Basic Animation  
Prerequisites: ARTC 1325  
Examination of concepts, characters and story boards for basic animation production. Emphasis on creating movement and expression utilizing traditional or electronically generated image sequences.  
(3 sem hrs; 6 studio)

ARTC 1313: Digital Publishing I  
Prerequisites: ARTC 1325, ARTC 1327  
The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout.  
(3 sem hrs; 6 studio)
ARTC 1325: Introduction to Computer Graphics
A survey of computer design concepts, terminology, processes and procedures. Topics include computer graphics hardware, electronic images, electronic publishing, vector-based graphics and interactive multimedia.
(3 sem hrs; 6 studio)

ARTC 1327: Typography
Corequisite: ARTC 1325
A study of letterforms and typographic concepts as elements of graphic communication. Emphasis on developing a current, practical typographic knowledge based on industry standards.
(3 sem hrs; 6 studio)

ARTC 1341: 3-D Animation I
Prerequisite: ARTC 1325
Instruction in three-dimensional (3-D) modeling and rendering techniques including lighting, staging, camera and special effects. Emphasis on 3-D modeling building blocks using primitives to create simple or complex objects.
(3 sem hrs; 6 studio)

ARTC 1345: 3-D Modeling and Rendering
Prerequisite: ARTC 1305
A studio course in the theory and technique of three-dimensional (3-D) modeling utilizing appropriate software. Topics include the creation and modification of 3-D geometric shapes; and variety of rendering techniques; and use of camera light sources, texture and surface mapping.
(3 sem hrs; 6 studio)

ARTC 1353: Computer Illustration
Corequisite: ARTC 1325
Implementation of software for illustration and/or photo manipulation for reproduction.
(3 sem hrs; 6 studio)

ARTC 1391: Special Topics in Graphic Design, Commercial Art and Illustration
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.
(3 sem hrs; 6 studio hrs)

ARTC 2305: Digital Painting and Imaging
Prerequisite: ARTC 1325
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.
(3 sem hrs; 6 studio)

ARTC 2311: History of Communication Graphics
Survey of the evolution of graphic arts as it relates to the history of art. Topics include formal, stylistic, social, political, economic, and historical aspects. Emphasis on the movement, schools of thought, individuals, and technology as they interrelate with graphic arts.
(3 sem hrs; 3 lec, 1 lab)

ARTC 2313: Digital Publishing II
Prerequisite: ARTC 1313
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.
(3 sem hrs; 6 studio)

ARTC 2317: Typographic Design
Prerequisite: ARTC 1327
Exploration of problems in typographic design including computer generated letterforms as elements of design. Topics include theory and techniques of traditional, contemporary and experimental typography for advertising and editorial usage.
(3 sem hrs; 6 studio)

ARTC 2335: Portfolio Development for Graphic Design
Prerequisite: Successful completion of 21 hrs of ARTC course or consent of instructor
Preparation of a portfolio comprised of completed graphic design class projects. Evaluation and demonstration of portfolio presentation methods based on the student's specific area of study.
(3 sem hrs; 2 lec, 2 lab)

ARTC 2341: 3-D Animation II
Prerequisite: ARTC 1341
Skill development in three-dimensional modeling and rendering techniques using lighting, staging and special effects for digital output. Emphasis on the production of three-dimensional (3-D) animation as final digital outputting using modeling, rendering and animation software.
(3 sem hrs; 6 studio)

IMED 1211: Storyboard
Introduction to the techniques of storyboarding including organizing a projects content and arranging it in a visual format.
(2 sem hrs; 3 studio).

IMED 1316: Web Page Design I
Prerequisites: ARTC 1325 or consent of instructor
Instruction in web page design and related graphic design issues including markup languages, web sites, and browsers.
(3 sem hrs; 6 studio)

IMED 1345: Interactive Multimedia I
Prerequisites: ARTC 1325
Exploration of the use of graphics and sound to create interactive multimedia animations using industry standard authoring software.
(3 sem hrs; 6 studio)

IMED 2345: Interactive Multimedia II
Prerequisite: IMED 1345
Instruction in the use of scripting language to create interactive multimedia projects. Topics include building a user interface, writing script and debugging.
(3 sem hrs; 6 studio)
IMED 2315: Web Page Design II
Prerequisite: IMED 1316
A study of mark-up language and advanced layout techniques for web pages. Emphasis on identifying the target audience and producing web sites according to accessibility standards, cultural appearance, and legal issues.
(3 sem hrs; 6 studio)

ASTRONOMY
PHYS 1111*: Astronomy I: Stars and Galaxies Lab
Prerequisite/Corequisite: PHYS 1311
Observe and photograph the stars, galaxies, and other astronomical objects. Laboratory studies of optical phenomena, spectral analysis of stars, emission spectra, resolution and function of various astronomical devices. PHYS 1311/1111 count toward the science laboratory requirement for many non-science programs.
(1 sem hr; 3 lab)

PHYS 1112*: Astronomy II: Solar Systems Lab
Prerequisite/Corequisite: PHYS 1312
Designed to study observing techniques, telescopes, and the solar system. Telescopes of several types and computers are available for use. PHYS 1312/1112 count toward the science laboratory requirement for many non-science programs.
(1 sem hr; 3 lab)

PHYS 1311*: Astronomy I: Stars and Galaxies
Emphasizes stars, galaxies, quasars, black holes, and cosmology. Activities are planned to enhance the lecture, and include telescopes, optics, spectra, and star charts.
(3 sem hrs; 3 lec)

PHYS 1312*: Astronomy II: Solar Systems
An introduction to the study of astronomy, emphasizing the solar system. Activities include the use of telescopes for observation, computers, celestial sphere, models and slides to visualize the subject material.
(3 sem hrs; 3 lec)

AUTO COLLISION TECHNOLOGY
ABDR 1315: Vehicle Interior Trim
An overview of glass removal and replacement and interior panel replacement. Introduction to interior and exterior trim removal and replacement.
(3 sem hrs; 2 lec, 2 lab) (ACT 3342)

ABDR 1327: Suspension Systems
Basics of standard and heavy duty steering and suspension systems including fundamentals, related tools and equipment, basic services, and individual system components. Emphasis on diagnostics and minor and major services on chassis, front suspension, and manual power steering systems.
(3 sem hrs; 2 lec, 2 lab)

ABDR 1349: Automotive Plastic and Sheet Molding Compound Repair
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.
(3 sem hrs: 2 lec, 2 lab) (ACT 3233)

ABDR 1431: Basic Refinishing
An introduction to terms, trade practices, hand tools, power tools, current refinishing products, shop safety, and equipment used in the automotive refinishing industry. Painting of trim and replacement parts included. Emphasis on surface preparation. Introduction to masking techniques.
(4 sem hrs; 2 lec, 6 lab) (ACT 3122, ACT 3222)

ABDR 1441: Structural Analysis and Damage Repair I
Skill development 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.
(4 sem hrs; 2 lec, 6 lab) (ACT 4313)

ABDR 1442: Structural Analysis and Damage Repair II
Prerequisite/Corequisite: ABDR 1441
Continuation of general repair and replacement procedures for damaged structural parts and collision damage.
(4 sem hrs; 2 lec, 6 lab) (ACT 4323)

ABDR 1455: Minor Metal Repair
Sheet metal alignment principles using mechanical and hydraulic equipment. Emphasis on attachment devices used to straighten and align exterior body panels.
(4 sem hrs; 2 lec, 6 lab)

ABDR 2402: Autobody Mechanical and Electrical Service
Instruction in the repair, replacement, and/or service of those mechanical or electrical systems that are subject to damage from a collision. Topics include drive train removal, reinstallation and service; cooling system service and repair; exhaust systems. Additional topics include wire and connector repair, reading wiring diagrams, and troubleshooting.
(4 sem hrs; 2 lec, 4 lab) (ACT 4332, 4353, 4372, 4382)

ABDR 2441: Major Collision Repair and Panel Replacement
Instruction in preparation of vehicles for repair including removal and reinstallation of fenders, bumpers, trims, head and door liners, locks, handles, fascia, headers, doors, tailgates, deck lids, hatches, and hoods. Interpreting information from damage reports, planning repair sequences, selecting appropriate tools, and organizing removed parts for reinstallation are also included. Special emphasis on developing safe work habits.
(4 sem hrs; 2 lec, 4 lab)

ABDR 2449: Advanced Refinish I
Skill development in multi-stage refinishing including base coat/clear coat techniques. Further development in identification of problems and solutions in color matching and partial panel refinishing.
(4 sem hrs; 2 lec, 6 lab) (ACT 4133, ACT 4233)

AUTOMOTIVE TECHNOLOGY
AUMT 1307: Automotive Electrical Systems
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.
(3 sem hrs; 2 lec, 2 lab) (AM 3023)
AUMT 1310: Automotive Brake Systems
Operation and repair of drum/disc type brake systems. Emphasis on safe use of modern equipment. Topics include diagnosis, and repair of power, manual, anti-lock brake and air brake systems, and parking brakes. May be taught manufacturer specific.
(3 sem hrs; 2 lec, 2 lab) (AM 3013) #

AUMT 1345: Automotive Heating and Air Conditioning
Prerequisite: DEMR 1323
Theory of automotive air conditioning and heating systems. Emphasis on the basic refrigeration cycle and diagnosis and repair of system malfunctions. Covers EPA guidelines for refrigerant handling and new refrigerant replacements. May be taught manufacturer specific.
(3 sem hrs; 2 lec, 2 lab) (AM 3143) #

AUMT 1380: Cooperative Education - Auto/Automotive Mechanic/Technician
Career related activities encountered in the student’s area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience.
(3 sem hrs; 1 lec, 20 hrs work/week)

AUMT 1353: Automotive Electrical Systems Theory
Prerequisite: AUMT 1307
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.
(3 sem hrs; 2 lec, 2 lab)

AUMT 1357: Automotive Brake Systems
Prerequisite: AUMT 1310
Operation and repair of drum/disc type brake systems. Emphasis on safe use of modern equipment. Topics include diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught manufacturer specific.
(3 sem hrs; 2 lec, 2 lab)

AUMT 1316: Suspension and Steering
Prerequisite: ABDR 1327
Theory and operation of automotive suspension and steering systems including tire and wheel problem diagnosis, component repair, and alignment procedures. May be taught manufacturer specific.
(3 sem hrs; 2 lec, 2 lab)

AUMT 1319: Automotive Engine Repair
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.
(3 sem hrs; 2 lec, 2 lab)

AUMT 2305: Theory of Automotive Engines
Prerequisite: AUMT 1319
Fundamentals of engine operation and diagnosis including lubrication and cooling systems. Emphasis on identification of components, measurements, inspections, and repair methods.
(3 sem hrs; 2 lec, 2 lab)

AUMT 2309: Manual Drive Train and Axles Theory
A study of automotive clutches, clutch operation devices, standard transmissions, transaxles, and differentials with emphasis on the diagnosis and repair of transmissions and drive lines. May be taught manufacturer specific.
(3 sem hrs; 2 lec, 2 lab)

AUMT 2313: Manual Drive Train and Axles
Prerequisite: AUMT 2309
A study of automotive clutches, clutch operation devices, standard transmissions, transaxles, and differentials with emphasis on the diagnosis and repair of transmissions and drive lines. May be taught manufacturer specific.
(3 sem hrs; 2 lec, 2 lab)

AUMT 2315: Theory of Engine Performance Analysis I
Prerequisite: AUMT 2309
Theory of operation and diagnosis of basic engine dynamics including the study of the ignition system, fuel delivery systems, and the use of engine performance diagnostic equipment.
(3 sem hrs; 2 lec, 2 lab)

AUMT 2323: Theory of Automatic Transmission and Transaxle
Theory of operation, hydraulic principles, and related circuits of modern automatic transmissions and transaxles. Discussion of diagnosis and repair techniques.
(3 sem hrs; 2 lec, 2 lab)

AUMT 2325: Automatic Transmissions and Transaxle
Prerequisite: AUMT 2323
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.
(3 sem hrs; 2 lec, 2 lab)

AUMT 2331: Theory of Engine Performance Analysis II
Prerequisite: AUMT 2315
Operation, diagnosis, and repair of basic engine dynamics, ignition systems, and fuel delivery systems. Use of basic engine performance diagnostic equipment. May be taught manufacturer specific.
(3 sem hrs; 2 lec, 2 lab)

AUMT 2334: Engine Performance Analysis II
Prerequisite: AUMT 2331
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.
(3 sem hrs; 2 lec, 2 lab)
AVIATION MAINTENANCE TECHNOLOGY

AERM 1101: Introduction to Aviation
An overview of aviation maintenance including the history of aviation, the mechanic's roles and duties, and nomenclature of aircraft and safety.
(1 sem hr; 1 lec)

AERM 1205: Weight and Balance
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.
(2 sem hrs; 1 lec, 2 lab)

AERM 1208: Federal Aviation Regulations
A course in the use and understanding of the Federal Aviation Administration (FAA) and aircraft manufacturers' publications, forms, and records; and the exercise of mechanic privileges within prescribed limitations.
(2 sem hrs; 2 lec, 1 lab)

AERM 1210: Ground Operations
An introductory course in fuels, servicing methods and procedures, aircraft movement, securing and operations of aircraft, external power equipment, aircraft cleaning, and corrosion control.
(2 sem hrs; 2 lec)

AERM 1240: Aircraft Propellers
(2 sem hrs; 1 lec, 2 lab)

AERM 1241: Wood, Fabric and Finishes
A course in the use and care of various covering materials, finishes, and wood structures including approved methods and procedures.
(2 sem hrs; 1 lec, 2 lab)

AERM 1243: Instruments and Navigation/Communication
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.
(2 sem hrs; 1 lec, 2 lab)

AERM 1247: Airframe Auxiliary Systems
Topics address 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.
(2 sem hrs; 1 lec, 4 lab)

AERM 1253: Aircraft Welding
Topics address 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.
(2 sem hrs; 1 lec, 2 lab)

AERM 1254: Aircraft Composites
A study of the inspection and repair of composites, fiberglass, honeycomb, and laminated structural materials including doors, windows, bonded structures, and interior furnishings.
(2 sem hrs; 1 lec, 3 lab)

AERM 1303: Shop Practices - Aerospace Manufacturing
An introduction to the correct use of hand and power 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. Students are introduced to the jigs and fixtures association with pre-fabrication and assembly of aircraft.
(3 sem hrs; 2 lec, 2 lab)

AERM 1314: Basic Electricity
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.
(3 sem hrs; 2 lec, 4 lab) (AMT 3023)

AERM 1315: Aviation Science
Fundamentals of mathematics, physics, and drawings as they apply to aircraft principles and operations as required by the Federal Aviation Administration for airframe and powerplant mechanics.
(3 sem hrs; 2 lec, 3 lab)

AERM 1344: Aircraft Reciprocating Engines
A study of reciprocating engines and their development, operating principles, and theory. Instruction in engine instruments, lubricating, and exhaust systems.
(3 sem hrs; 2 lec, 4 lab)

AERM 1345: Airframe Electrical Systems
A study of airframe electrical systems including installation, removal, disassembly, and repair of electrical components and related wiring.
(3 sem hrs; 2 lec, 4 lab)

AERM 1349: Hydraulic, Pneumatic and Fuel Systems
Skill development in inspecting, servicing, and maintaining aircraft fluid systems including hydraulics, pneumatics, and fuel. Application of basic concepts through detailed maintenance procedures.
(3 sem hrs; 2 lec, 4 lab)

AERM 1350: Landing Gear Systems
Inspection, servicing, overhaul, and repair of fixed and retractable landing gear systems. In-depth coverage of systems, components, and operation.
(3 sem hrs; 2 lec, 2 lab)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Hours (Lecture, Lab)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERM 1351</td>
<td>Aircraft Turbine Engine Theory</td>
<td>Theory, history, and servicing of turbine engines to include lubrication, instrumentation, auxiliary power units, and exhaust systems.</td>
<td>(3 sem hrs; 2 lec, 4 lab)</td>
</tr>
<tr>
<td>AERM 1372</td>
<td>Aircraft Sheet Metal</td>
<td>A course 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.</td>
<td>(3 sem hrs; 2 lec, 4 lab)</td>
</tr>
<tr>
<td>AERM 1373</td>
<td>Shop Practices</td>
<td>An introduction to the correct use of hand tools and 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.</td>
<td>(3 sem hrs; 2 lec, 4 lab)</td>
</tr>
<tr>
<td>AERM 1380</td>
<td>Cooperative Education: Aircraft Mechanic/Technician Airframe</td>
<td>An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience.</td>
<td>(3 sem hrs; 1 lec, 20 hrs work/week)</td>
</tr>
<tr>
<td>AERM 1391</td>
<td>Special Topics in Fasteners</td>
<td>The inspection and repair of metal and composite structures including forming, layout of metal, and selection, installation and removal of special fasteners. Fabrication and installation of peelable, brass, phenolic and fiberglass shims will be covered.</td>
<td>(3 sem hrs; 2 lec, 2 lab)</td>
</tr>
<tr>
<td>AERM 1456</td>
<td>Aircraft Powerplant Electrical</td>
<td>Theory, operation, and maintenance of powerplants including electrical, ignition, starting, and fire protection systems.</td>
<td>(4 sem hrs; 1 lec, 6 lab)</td>
</tr>
<tr>
<td>AERM 2231</td>
<td>Airframe Inspection</td>
<td>A study of the materials and procedures for completing a 100-hour inspection as per Federal Aviation Regulations and manufacturers' service information.</td>
<td>(2 sem hrs; 1 lec, 2 lab)</td>
</tr>
<tr>
<td>AERM 2233</td>
<td>Assembly and Rigging</td>
<td>An advanced course in assembly and rigging of fixed and rotary-wing aircraft.</td>
<td>(2 sem hrs; 1 lec, 4 lab)</td>
</tr>
<tr>
<td>AERM 2341</td>
<td>Powerplant and Auxiliary Power Units</td>
<td>General principles of auxiliary power units (APU), powerplant systems, and components.</td>
<td>(3 sem hrs; 2 lec, 2 lab)</td>
</tr>
<tr>
<td>AERM 2351</td>
<td>Aircraft Turbine Engine Overhaul</td>
<td>Topics address inspection, disassembly, reassembly, and replacement of gas turbine engines, sections, and components and operational troubleshooting and analysis.</td>
<td>(3 sem hrs; 2 lec, 4 lab)</td>
</tr>
<tr>
<td>AERM 2352</td>
<td>Aircraft Powerplant Inspection</td>
<td>In-depth coverage of methods and procedures for completing airworthiness and conformity inspections on aircraft powerplants.</td>
<td>(3 sem hrs; 1 lec, 6 lab)</td>
</tr>
<tr>
<td>AERM 2447</td>
<td>Aircraft Reciprocating Engine Overhaul</td>
<td>A study of reciprocating engine overhaul including measurement and inspection procedures. Instruction in removal and installation, inspections, checks, servicing, and repair of engines.</td>
<td>(4 sem hrs; 2 lec, 6 lab)</td>
</tr>
<tr>
<td>AVNC 1343</td>
<td>Aircraft Electrical and Electronic Systems Installation</td>
<td>A study of and practical experience in the installation of avionic systems in aircraft, mounting electronic equipment, construction and installation of electrical wiring and cables, and proper use of tools, and selection of materials.</td>
<td>(3 sem hrs; 2 lec, 2 lab)</td>
</tr>
<tr>
<td>DFTG 2442</td>
<td>Aeronautical Drafting</td>
<td>A study of aeronautical drawings required in the aircraft and aerospace industries. Examines the fundamental manufacturing techniques for modern composite aircraft.</td>
<td>(4 sem hrs; 4 lec)</td>
</tr>
<tr>
<td>QCTC 1341</td>
<td>Statistical Process Control</td>
<td>Components of statistics including techniques of collection, presentation, analysis, and interpretation of numerical data as applied to statistical control Stresses application of correlation methods, analysis of variance, dispersion, sampling quality control, reliability, mathematical models, and programming.</td>
<td>(3 sem hrs; 3 lec)</td>
</tr>
<tr>
<td>TECM 1303</td>
<td>Technical Mathematics</td>
<td>A review of mathematical functions including fractions, decimals, proportions, perimeters, areas, columns of geometric figures, and certain algebraic/trigonometric functions, as required by specific businesses and industries for successful on-the-job performance.</td>
<td>(3 sem hrs; 3 lec)</td>
</tr>
</tbody>
</table>

**BASIC ACADEMIC SKILLS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASR 0101</td>
<td>Basic Academic Skills</td>
<td>Basic skills course that develops and reinforces reading, math, and writing skills with special emphasis on reading to meet TASP program requirements.</td>
</tr>
<tr>
<td>BASM 0101</td>
<td>Basic Academic Skills</td>
<td>Basic Skills course that develops and reinforces math, reading, and writing skills with special emphasis on math to meet TASP program requirements.</td>
</tr>
</tbody>
</table>
BASW 0101: Basic Academic Skills
Basic skills course that develops and reinforces math, reading, and writing skills with special emphasis on writing to meet TASP program requirements.
(1 sem hr; 1 lec)

BAS 0103: Basic Academic Skills
Basic skills course that develops and reinforces math, reading, and writing. This course does not meet TASP program requirements.
(1 sem hr; 1 lec)

BASR 0202: Basic Academic Skills
Basic skills course that develops and reinforces reading, math, and writing skills with special emphasis on math to meet TASP program requirements.
(2 sem hrs; 1 lec, 2 lab)

BASM 0202: Basic Academic Skills
Basic skills course that develops and reinforces reading, math, and writing skills with special emphasis on math to meet TASP program requirements.
(2 sem hrs; 1 lec, 2 lab)

BAS 0203: Basic Academic Skills
Basic skills course that develops and reinforces math, reading, and writing.
This course does not satisfy TASP program requirements.
(2 sem hrs; 1 lec, 2 lab)

BIOLOGY
BIOL 1108*: Life Science Lab I (lab for non-science majors)
Laboratory experience in ecology and plant and animal interactions. Suggest that this lab be taken during the same semester as BIOL 1308.
(1 sem hr; 2 lab)

BIOL 1109*: Life Science Lab II (lab for non-science majors)
Laboratory experiments in the basic processes of life using plant and animal models. Suggest that this lab be taken during the same semester as BIOL 1309.
(1 sem hr; 2 lab)

BIOL 1308*: Life Science I (for non-science majors)
A hands-on, collaborative, and interactive survey of major topics in biology with emphasis on plants and animals and their interactions with the world around them.
(3 sem hrs; 3 lec)

BIOL 1309*: Life Science II (for non-science majors)
Additional hands-on, collaborative, and interactive survey of major topics in biology with emphasis on plant and animal structure and function.
(3 sem hrs; 3 lec)

BIOL 1406**: Biology I
Prerequisite: High school Biology or CHEM 0201
Fundamentals of molecular biology, cell biology, genetics, and evolutionary theory.
(4 hrs; 3 lec, 3 lab) (BIOL 3114)#

BIOL 1407**: Biology II
Prerequisite: BIOL 1406
Fundamentals of biology of organisms, population biology, and biological diversity.
(4 hrs; 3 lec, 3 lab) (BIOL 3124)#

BIOL 1411**: Botany
(4 sem hrs; 3 lec, 3 lab) (BIOL 3114)#

BIOL 1413**: Zoology
A study of protozoan protista and animal kingdom through vertebrates. Application of the biological principles and concepts of cellular, developmental, ecological, genetic, and molecular biology to the morphological and physiological relations of organisms. Meets liberal arts and natural sciences requirements.
(4 sem hrs; 3 lec, 3 lab) (BIOL 3124)#

BIOL 2106*: Environmental Science Lab
Corequisite: BIOL 2306
Laboratory exercises in environmental problems.
(1 sem hr; 3 lab)

BIOL 2279: Special Topics in Biology
Prerequisite: Consent of instructor
Integrates on-campus study with practical, hands-on experience in the biological sciences. The individual student will set specific goals and objectives in the study of living organisms and their systems.
(2 sem hrs; 1 lec, 5 work/week)

BIOL 2389*: Special Topics in Biology
Prerequisite: Consent of instructor
Integrates on-campus study with practical, hands-on experience in the biological sciences. The individual student will set specific goals and objectives in the study of living organisms and their systems.
(3 sem hr; 2 lec, 5 work/week)

BIOL 2306*: Environmental Science
Corequisite: BIOL 2106
The relationship of man and his environment and their interdependence, including environmental perception, ecological relationships, pollution, water supply, urbanization and related topics.
(3 sem hrs; 3 lec) (BIOL 3013)#

BIOL 2316*: Genetics
Prerequisites: BIOL 1406, MATH 1314
Basic principles of Mendelian and molecular genetics.
(3 sem hrs; 3 lec, 1 lab)
BIOI 2374: Integrated Biology
Prerequisite/Corequisite: CHEM 1375
Preparation for elementary and middle school teachers of science: to supplement science knowledge and increase confidence levels of science instruction. Hands-on activities, and survey of topics in biology, which will include structure and systems, energy transformations, change over time, interactions and scientific world view.
(3 sem hrs; 2 lec, 4 lab) (BIOL 4033)#

BIOI 2401*: Human Anatomy and Physiology I
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331; recommended: CHEM 2021.
A detailed study of the human organism according to levels of chemical and structural organization with special reference to cytology, histology, and organs of the integumentary, skeletal, muscular, and nervous systems and fluid and electrolyte balance.
(4 sem hrs; 3 lec, 3 lab) (BIOL 3424)#

BIOI 2402*: Human Anatomy and Physiology II
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331; recommended: CHEM 2021.
A detailed study of the human organism according to levels of chemical and structural organization with special reference to cytology, histology, and organs of the sense organs, endocrine, cardiovascular, respiratory, urinary, digestive, and reproductive systems, and genetics.
(4 sem hrs; 3 lec, 3 lab) (BIOL 3434)#

BIOI 2404*: Human Physiology
Prerequisites: BIOI 1406, BIOI 1407 or consent of department chair
Study of the functions, structure and interactions of the organ systems of the human body.
(4 sem hrs; 3 lec, 3 lab) (BIOL 4124)#

BIOI 2421*: Microbiology
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331; recommended: CHEM 2021.
Study of microorganisms and the manner in which they affect health; characteristics, growth requirements, methods of transfer, and reactions of the body toward invading organisms; principles underlying immunity; food, water, industrial, and ecological microbiology.
(4 sem hrs; 3 lec, 3 lab) (BIOL 3214)#

BIOI 2428*: Vertebrate Anatomy
Prerequisites: BIOI 1406, BIOI 1407
Comparative study of the chordate animals with emphasis on the structure and development of representative vertebrate animals and on the evolution of the vertebrate classes.
(4 sem hrs; 3 lec, 3 lab) (BIOL 4114)#

BIOI 2471: Biotechnology I
Prerequisites: BIOI 1406
The study of current research and laboratory procedures in biotechnology and its uses in agriculture, industry and medicine. This course will emphasize the basic laboratory skills to include sterile techniques, laboratory mathematics, spectrophotometry, recombinant DNA techniques, electrophoresis, genomic library construction and bioinformatics.
(4 sem hrs; 3 lec, 4 lab)

BIOI 2472*: Biotechnology II
Prerequisites: BIOI 2471
Continuation of Biotechnology I with emphasis on skills to include gene transfer, polymerase chain reaction, chromatography, protein characterization, ELISA, enzymatic assays, PAGE electrophoresis, and bioinformatics.
(4 sem hrs; 3 lec, 4 lab)

CHEM 0201: Pre Anatomy and Physiology
An introduction to cells and their chemistry. This course is recommended for biology students lacking a foundation in chemistry.
(2 sem hrs; 2 lec, 1 lab)

FORS 2440: Basic Evidence Gathering and Analysis
Prerequisite: BIOI 1406
Introduction to crime scene investigation and evidence gathering. The methods, procedures, techniques, and preservation of crime scene evidence will be presented as students learn "hands on" the proper procedures of evidence gathering and how scientific instrumentation has changed the courtroom. Specific labs include trace analysis of hair and fiber, dental analysis, stain analysis, epithelial cell analysis, latent fingerprint analysis, DNA sequencing, and other basic lab analytical techniques.
(4 sem hrs; 3 lec, 4 lab)

BUSINESS ADMINISTRATION

BUSI 1301*: Introduction to Business
Survey of modern business activities; basic industries, forms of organization, banking, credit, problems of management, business risks, and the relation of government to business.
(3 sem hrs; 3 lec) (BA 3333)#

BUSI 1307*: Personal Finance
Personal and family accounts, budgets, budgetary control, bank accounts, charge accounts, borrowing, investing, home ownership, wills, trust plans.
(3 sem hrs; 3 lec)

BUSI 2301*: Business Law I
General principles of law relating to legal rights and remedies, contracts, agency employment, and business organization, including partnerships and corporations. Practical business problems and their legal implications.
(3 sem hrs; 3 lec) (BA 4153)#

BUSI 2371: Principles of Management
Management principles and techniques for all fields of business, including business objectives, policies, functions, leadership, organization, structure, and control.
(3 sem hrs; 3 lec) (BA 4183, BMGT 1303)#

BUSI 2471: Statistics
Prerequisite: MATH 1314 or MATH 1324 or consent of instructor
General application of statistical principles; methods of collecting, analyzing, presenting and interpreting numerical data. Use of computers for data analysis and statistical chart preparation. Student is expected to have some background in use of computers.
(4 sem hrs; 3 lec, 3 lab) (BA 4524)
CHEM 0201: Pre-Anatomy and Physiology
An introduction to cells and their chemistry. This course is recommended for biology students lacking a foundation in chemistry. This is a developmental course. It does not meet elective or graduation requirements.
(2 sem hrs; 2 lec, 1 lab)

CHEM 108
CHEMISTRY

CHEM 1105*: Introductory Chemistry I Laboratory
Prerequisite/Corequisite: CHEM 1305
(1 sem hrs; 4 lab)

CHEM 1111*: Principles of Chemistry I Laboratory
Prerequisite/Corequisite: CHEM 1311
(1 sem hr; 4 lab) (CHEM 3451)#

CHEM 1112*: Principles of Chemistry II Laboratory
Prerequisite/Corequisite: CHEM 1312
(1 sem hr; 4 lab) (CHEM 3551)#

CHEM 1305*: Introductory Chemistry I
Survey for non-science majors, principles of general introductory chemistry in preparation for CHEM 1311.
(3 sem hrs; 3 lec) (CHEM 3013)#

CHEM 1307*: Introductory Thanatochemistry
Survey course of the basic principles of chemistry as they relate to funeral service. Especially stressed are: the chemical principles and precautions involved in sanitation, disinfection, public health, and emblaming practice. Government regulation of chemicals currently used in funeral service is reviewed. Designed for non-science majors, allied health, specifically mortuary science majors.
(3 sem hrs; 3 lec)

CHEM 1311*: Principles of Chemistry I
Prerequisites: CHEM 1305 or high school chemistry and MATH 1314
Fundamental principles of chemistry. For students who plan careers in the physical sciences or related science, medicine, or engineering.
(3 sem hrs; 3 lec) (CHEM 3413)#

CHEM 1312*: Principles of Chemistry II
Prerequisite: CHEM 1311 with a grade of C or higher
Continuation of CHEM 1311.
(3 sem hrs; 3 lec) (CHEM 3513)#

CHEM 1375: Integrated Chemistry I
Preparation for elementary and middle school teachers of science: to supplement science knowledge and increase confidence levels of science instruction, hands on activities, and survey of topics in atomic structure, inorganic and organic molecules, periodic tables, acids and bases, kinetic theory of gases, energy and chemical changes.
(3 sem hrs; 2 lec, 4 lab) (CHEM 3033)#

CHEM 1406*: General Organic and Biological Chemistry
Fulfills the chemistry requirement for most biomedical and technology majors, and non-science majors requirements.
(4 sem hrs; 3 lec, 4 lab) (CHEM 3113, 3151)#

CHEM 1419*: Introductory Organic Chemistry
Prerequisite: CHEM 1305 or CHEM 1405
A survey course introducing organic chemistry and biochemistry. Fulfills non-science majors requirements.
(4 sem hrs; 3 lec, 4 lab)

CHEM 2279: Academic Cooperative in Chemistry
Prerequisite: Consent of instructor
Integrates on-campus study with practical hands-on work experience in Chemistry. The individual student will set specific goals and objectives in the study of inanimate objects, processes of matter and energy and associated phenomena.
(2 sem hrs; 1 lec, 5 hrs work/week)

CHEM 2389*: Academic Cooperative in Chemistry
Prerequisite: Consent of instructor
Integrates on-campus study with practical hands-on work experience in Chemistry. The individual student will set specific goals and objectives in the study of inanimate objects, processes of matter and energy and associated phenomena.
(3 sem hr; 2 lec, 5 hrs work/week)

CHEM 2223*: Organic Chemistry I Laboratory
Laboratory Prerequisite/Corequisite: CHEM 2323
(2 sem hrs; 6 lab) (CHEM 4252)#

CHEM 2225*: Organic Chemistry II Laboratory
Laboratory Prerequisite/Corequisite: CHEM 2325
(2 sem hrs; 6 lab) (CHEM 4352)#

CHEM 2323*: Organic Chemistry I
Prerequisite: CHEM 1312 with a grade of C or higher
The compounds of carbon; reaction mechanisms, spectroscopic and other physical and chemical properties.
(3 sem hrs; 3 lec) (CHEM 4213)#

CHEM 2325*: Organic Chemistry II
Prerequisite: CHEM 2323 with a grade of C or higher
A continuation of CHEM 2323.
(3 sem hrs; 3 lec) (CHEM 4313)#

CHILD DEVELOPMENT/EARLY CHILDHOOD

CDEC 1196: Special Topics in Administration for Programs for Young Children
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.
(1 sem hr: 1 lec)

CDEC 1264: Practicum - Observation Techniques
Introductory practical training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates to the workplace training and experiences to the student’s general and technical course of study. The guided external experiences may or may not be for pay.
(2 sem hrs; 20 hrs work/week) (CDEC 1303, CDEC 1319, CDEC 1356, CDEC 1359, CDEC 1454, CDEC 2421, CDA 3011, CDA 3022)#
CDEC 1294: Special Topics in Advanced Child Care Practices
Corequisite: CDEC 2264
Study of advanced skills in the early childhood setting for teachers and administrators. Content addresses 13 functional areas of quality child care, current research, knowledge, attitudes and behaviors.
(2 sem hrs; 2 lec) (CDEC 2464, CDEC 1295, CDA 4015)

CDEC 1313: Curriculum Resources for Early Childhood
A study of fundamentals of curriculum design and implementation in developmentally appropriate programs for children.
(3 sem hrs; 3 lec)

CDEC 1319: Child Guidance
(3 sem hrs; 3 lec)

CDEC 1321: The Infant and Toddler
A study of appropriate infant and toddler (birth to 3 years) programs, including an overview of development, quality caregiving routines, appropriate environments, materials and activities, and teaching/guidance techniques.
(3 sem hrs; 3 lec) (CDA 3033, CDA 3011)

CDEC 1356: Emergent Literacy for Early Childhood
An exploration of principles, methods, and materials for teaching young children language and literacy through a play-based, integrated curriculum.
(3 sem hrs; 3 lec) (CDA 3023, CDA 4113)

CDEC 1358: Creative Arts for Early Childhood
An exploration of principles, methods, and materials for teaching young children music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking.
(3 sem hrs; 3 lec) (CDA 3113)

CDEC 1359: Children With Special Needs
A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, educational intervention, available resources, referral processes, and the advocacy role and legislative issues.
(3 sem hrs; 3 lec) (CDA 4013, CDA 4032)

CDEC 2264: Practicum - Advanced Child Care Practices
Corequisite: CDEC 1294
Advanced practical training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates to the workplace training and experiences to the student's general and technical course of study. The guided external experiences may or may not be for pay.
(2 sem hrs; 20 hrs work/week) (CDEC 2464, CDA 4015)

CDEC 2265: Practicum - Management
Practical management training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates to the workplace training and experiences to the student's general and technical course of study. The guided external experiences may or may not be for pay.
(2 sem hrs; 20 hrs work/week) (CDEC 2426, CDEC 2428, CDA 4022)

CDEC 2307: Math and Science for Early Childhood
An exploration of principles, methods, and materials for teaching young children math and science concepts through discovery and play.
(3 sem hrs; 3 lec) (CDA 3053)

CDEC 2326: Administration of Programs for Children I
A practical application of management procedures for early care and education programs, including a study of operating, supervising, and evaluating programs. Topics on philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication.
(3 sem hrs; 3 lec) (CDEC 2426, CDA 4023, CDA 4022)

CDEC 2328: Administration of Programs for Children II
An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management advocacy, professionalism, fiscal analysis and planning parent education/partnerships, and technical applications in programs.
(3 sem hrs; 3 lec) (CDEC 2428, CDA 4024)

CDEC 2341: The School Age Child
A study of appropriate programs for the school age child (5 to 13 years) including an overview of development, appropriate environments, materials and activities, and teaching/guidance techniques.
(3 sem hrs; 3 lec)

TECA 1303: Family, School and Community
A study of the child, family, community, and schools, including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Students will participate in field experience with children from infancy through age 12 in a variety of settings with varied and diverse populations.
(3 sem hrs; 3 lec; 1 lab) (CDEC 1303, TECA 1303)

TECA 1311*: Educating Young Children
An introduction to the education of the young child, including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical and professional responsibilities, and current issues. Students will participate in field experiences with children from infancy through age 12 in a variety of educational settings with varied and diverse populations.
(3 sem hrs; 3 lec; 1 lab) (CDEC 1311)
### COMPUTER INFORMATION SYSTEMS

#### BCIS 1301*: Microcomputer Applications
**Prerequisite: BCIS 1405**

Introduction to intermediate business programming techniques. Includes structured programming methods, designing customized software applications using word processing, spreadsheet, database, and presentation graphics software for the microcomputer.

(3 sem hrs; 2 lec, 4 lab) (CIS 3123)

#### BCIS 1405*: Business Computer Applications
**Prerequisite/Corequisite: 25 words/minute typing or POFT 1127 or concurrent enrollment**

Study of computer terminology, hardware, software, operating systems, and information systems relating to the business environment. The main focus of this course is on business applications of software, including word processing, spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet. Mandatory scheduled lab.

(4 sem hrs; 3 lec, 2 lab) (CIS 3184)

#### BCIS 2390*: Systems Analysis I
**Prerequisites: BCIS 1301, COSC 1415**

Comprehensive introduction to systems and methodologies for software development for computer systems. Language design and implementation, structures for design and development, testing for correctness, automatic programming and CASE tools.

(3 sem hrs; 3 lec) (CIS 4563)

#### BCIS 2431*: Visual Basic Programming
**Prerequisites: BCIS 1301, COSC 1415**

Further application of business programming techniques. Advanced topics may include varied file access techniques, system profiles and security, visual event-driven object-oriented computing with emphasis on the use of Visual Basic for rapid prototyping business, database, and web applications.

(4 sem hrs; 3 lec, 2 lab) (CIS 4404)

#### COSC 1301*: Computer Concepts (Non-Majors)
**Prerequisite/Corequisite: 25 words/minute typing or POFT 1127 or concurrent enrollment**

This course concentrates on the use of productivity software (word processing, spreadsheet and presentation graphics) and electronic communications using e-mail, the Internet, and the World Wide Web. It is designed for students who are majoring in a field other than computer science or computer information systems.

(3 sem hrs; 2 lec, 3 lab) (CIS 3023)

#### COSC 1317*: Computer Programming for Engineers and Scientists
**Prerequisite/Corequisite: MATH 2413**

Current engineering programming language (C, C++ or other); problems in engineering applications and numerical analysis.

(3 sem hrs; 3 lec, 3 lab) (MATH 4823)

#### COSC 1415*: Programming Techniques and Logic Design I
**Prerequisites: BCIS 1405, test scores on a state-approved test indicating college-level reading and math skills: Math Placement Score of 17 or higher or a grade of C or higher in MATH 0302 and a grade of C or higher in RDNG 0331.**

This is an introductory course in program design and program development with an emphasis on computer programming techniques. Students use the logic structures sequence, selection, and iteration to solve various programming problems. Programs are written using a current, block structured programming language with an emphasis on object-oriented design. Mandatory scheduled lab.

(4 sem hrs; 3 lec, 2 lab) (CIS 3184)

#### COSC 1430*: Current Issues
**Prerequisite: Consent of instructor and department chair**

Introduction to computer programming utilizing various computer languages with emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Subjects will vary with instructor and student interest; student may repeat course for credit as topics vary.

(4 sem hrs; 3 lec, 2 lab) (CIS 4504)

#### COSC 1436*: Programming Fundamentals I

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.

(4 sem hrs; 3 lec, 2 lab)

#### COSC 1437*: Programming Fundamentals II
**Prerequisites: COSC 1436**

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 software engineering.

(4 sem hrs; 3 lec, 2 lab)
COSC 2436*: Programming Fundamentals III  
Prerequisites: COSC 1437  
Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis.  
(4 sem hrs; 3 lec, 2 lab)

COSC 2425*: Computer Organization and Assembly Language Programming  
Prerequisites: COSC 1437  
Syntax and semantics of a typical assembly language; macros and macroprocessors; design, construction, and execution of assembly language programs; data representation; and addressing techniques.  
(4 sem hrs; 3 lec, 2 lab) (ITNW 2309)

COSC 2430: Programming Techniques and Logic Design II  
Prerequisite: COSC 1415  
A continuation of COSC 1415 with heavy emphasis on problem-solving techniques. Topics may include file access methods, abstract data structures, statistically and dynamically allocated memory, sequential and direct access file structures, object-oriented programming and design and software engineering principals and other topics not normally covered in an introductory computer programming course.  
(4 sem hrs; 3 lec, 2 lab) (CIS 4184, BCIS 2415)

CPMT 1305: IT Essentials I: PC Hardware and Software  
Prerequisite: COSC 1415  
An introduction to information technology and data communication. Includes topics on personal computer hardware and software and basic networking concepts.  
(3 sem hrs; 2 lec, 2 lab)

CPMT 1309: IT Essentials II: Networking Operating Systems  
Prerequisite: CPMT 1305  
An overview of network operating systems that specifically covers the Linux Red Hat operating environment. Students will learn how to use the Linux operating system, the K Desktop Environment (KDE), and GNU Network Object Model (GNOME).  
(3 sem hrs; 2 lec, 2 lab)

INEW 2434: Advanced Web Page Programming  
Prerequisite: ITSE 2402  
Advanced applications for web authoring. Topics may include Perl scripts, Common Gateway Interface (CGI), Database Interaction, Active Server Pages, Java Applets, JavaScript's, tables, HTML, XHTML, and/or interactive elements.  
(4 sem hrs; 3 lec, 2 lab)

ITSC 1313: Internet/Web Page Development  
Prerequisite: BCIS 1405  
This course is an introduction to the Internet covering the elementary concepts of the network and introducing students to various communication tools for finding and using the information and resources available on the Internet. Instructon in the use of Internet services and the fundamentals of Web page design and Website development will be discussed including basic and intermediate Internet research techniques, a survey of Internet search engines and libraries, XHTML, Web page design, and the use of Web development software.  
(3 sem hrs; 2 lec 4 lab) (CIS 4333)

ITSC 1402: Computer Control Language  
Prerequisites: ITSC 1411, COSC 1415  
A basic introduction to Control Language (CL) programming for the AS400 computer system. Course content begins with a description of CL as the primary interface for AS/400 functions, covers CL's various input and output capabilities and finishes with a number of advanced Control Language topics.  
(4 sem hrs; 3 lec, 2 lab) (ITSW 1402)

ITSC 1407: UNIX Operating System I  
Prerequisites: BCIS 1301, COSC 1415  
A study of the UNIX(Linux) Operating System including multi-user concepts, terminal emulation, use of system editor, basic UNIX(Linux) commands, and writing script files. Topics include introductory system management concepts. The course is designed to provide the student with a depth of experience in the use of UNIX(Linux) operating system. Readings, class discussions, and assignments will focus on the effective use of various operating system facilities. Design and implementation of various scripts that will be useful not only in a UNIX(Linux) environment but also in equivalent or interactive web-based facilities. Mandatory scheduled lab.  
(4 sem hrs; 3 lec 2 lab) (ITSW 2436)

ITSC 1411: AS/400 Operating Systems I  
Prerequisite: COSC 1415  
A study of the AS/400 operating system including multi-user concepts, terminal emulation, use of system editor, basic AS/400 menus, commands, and help screens. Topics include introductory system management concepts and file management.  
(4 sem hrs; 3 lec, 2 lab) (ITSW 1411)

ITSC 2335: Application Problem Solving  
Prerequisite: Consent of department chair  
Analyze business problems, document specific requirements, and interpret the problems. Match the computer software to both the problems and the computer on which it will operate. Produce operational solutions to the problems.  
(3 sem hrs; 7 lab) (CIS 4583)

ITSC 2364/2365: Practicum - Computer Information Sciences - General  
Prerequisite: Consent of department chair  
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid.  
(3 sem hrs; 30 hrs work/week)

*Texas Common Course Number
ITSE 2437: UNIX Operating System II  
Prerequisite: ITSC 1407  
Advanced study of the UNIX/LINUX operating system. Includes advanced concepts of system management and communication, the installation and maintenance of software, network security, and data integrity issues. Primary emphasis will be on UNIX/LINUX programming and scripting tools.  
(4 sem hrs; 3 lec, 2 lab)

ITSE 1414: Introduction to RPG Programming  
Prerequisites: ITSC 1411, COSC 1415  
Design and implementation of business-oriented information processing programs. Emphasis is on file processing and output editing.  
(4 sem hrs; 3 lec, 2 lab) (CIS 4374)#

ITSE 1418: Introduction to Cobol Programming  
Prerequisite: ITSC 1411 and COSC 1415  
Introduction to computer programming using Cobol. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, and use of table processing techniques.  
(4 sem hrs; 3 lec, 2 lab)

ITSE 2437: Advanced Database Programming  
Prerequisite: ITSC 1411 and ITSE 2409  
Application development through database programming techniques. Content of the course emphasizes using database structures, normalization of a database, database modeling, and database access methods. Students will complete several projects that involve construction of database schemas.  
(3 sem hrs; 2 lec, 3 lab) (CIS 4813)#

ITSE 2386: Internship - Computer Programming  
Prerequisite: Consent of department chair  
Internship in computer programming. On-the-job training coordinated by instructor of CIS with employer.  
(3 sem hrs; 9 hrs work/week) (CIS 4643)#

ITSE 2402: Intermediate Web Programming  
Prerequisite: ITSC 1407 and ITSC 1313  
Intermediate applications for web authoring. Topics may include server side products, Perl, HTML, Java, JavaScript, and/or ASP.  
(4 sem hrs; 3 lec, 2 lab)

ITSE 2417: JAVA Programming I  
Prerequisite: COSC 1415  
Introduction to the JAVA programming language with emphasis on object-orientation. Training in the fundamental syntax and semantics of JAVA for applications and web applets. Student will develop appropriate executable programs and documentation using structured programming techniques.  
(4 sem hrs; 3 lec, 2 lab)

ITSE 2409: Introduction to Database Programming  
Prerequisite: BCIS 1301 and COSC 1415  
Introduction to database theory and applications. Techniques presented for planning, defining, and designing a database plus procedures pertaining to queries, reports, control, and security.  
(4 sem hrs; 3 lec, 2 lab) (CIS 4674)#

ITSE 2435: Advanced RPG Programming  
Prerequisite: ITSE 1414  
Advanced RPG studies covering the design and coding of subfile programs, identifying methods of debugging RPG code, the design and coding of windows applications, work with program level API's, and other related topics.  
(4 sem hrs; 3 lec, 2 lab) (CIS 4474)#

ITSE 2451: Advanced Cobol Programming I  
Prerequisite: ITSE 1418  
Further application of advanced programming technique using Cobol. This includes file access methods, data structure and modular programming, program testing and documentation.  
(4 sem hrs; 3 lec, 2 lab)

ITSE 2459: Advanced Computer Programming  
Prerequisite: ITSC 2437  
Advanced programming technique application. Topics include file access, utilizing UNIX/LINUX system calls (kernel subroutines); data structure communication through shared memory, message queues, and pipes; program-testing utilizing developed background network server processes and client application server requests; and system documentation.  
(4 sem hrs; 3 lec, 2 lab)

CRIMINAL JUSTICE

CRIJ 1301*: Introduction to Criminal Justice  
History and philosophy of criminal justice and ethical considerations; crime defined; its nature and impact; overview of criminal justice system; law enforcement; court system; prosecution and defense; trial process; corrections.  
(3 sem hrs; 3 lec) (CJ 3013)

CRIJ 1306*: Court Systems and Practices  
The judiciary in the criminal justice system; structure of the American Court System; prosecution; right to counsel; pretrial release; grand juries; adjudication process; types and rules of evidence; sentencing.  
(3 sem. hrs; 3 lec) (CJ 3023)

CRIJ 2313*: Correctional Systems and Practices  
Corrections in the criminal justice system; organization correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues.  
(3 sem hrs; 3 lec) (CJ 4073)

CRIJ 2328*: Police Systems and Practices  
The police profession; organization of law enforcement systems; the police role; police discretion; ethics; police-community interaction; current and future issues.  
(3 sem hrs; 3 lec) (CJ 4053)

CRIJ 1307*: Crime in America  
American crime problems in historical perspective; social and public policy factors affecting crime; impact and crime trends; social characteristics of specific crimes; prevention of crime.  
(3 sem hrs; 3 lec) (CJ 4013)
**CRIJ 1310**: Fundamentals of Criminal Law
Nature of criminal law; philosophical and historical development; major definitions and concepts; classification of crime; elements of crimes and penalties using Texas statutes as illustrations; criminal responsibility.
(3 sem hrs; 3 lec) (CJ 4023)

**CRIJ 2323**: Legal Aspects of Law Enforcement
Police authority; responsibilities; constitutional constraints; laws of arrest, search, and seizure; police liability.
(3 sem hrs; 3 lec) (CJ 3033)

**CRIJ 2314**: Criminal Investigation
Investigatory theory; collection and preservation of evidence; sources of information; interview and interrogation; use of forensic sciences; case and trial preparation.
(3 sem hrs; 3 lec) (CJ 4063)

**CRIJ 2301**: Community Resources in Corrections
Role of the community in corrections; community programs for adults and juveniles; administration of community programs; legal issues; future trends in community treatment.
(3 sem hrs; 3 lec) (CJ 3053)

**CJCR 1491**: Correctional Officer I
Role of a Correctional Officer within the State of Texas Prison System includes history and overview of TDCJ, employee benefits, ethics, rules of conduct and includes labs stressing firearms, defensive tactics, chemical agents, first aid and cardiopulmonary resuscitation.
(4 sem hrs; 3 lec, 4 lab)

**CJCR 1391**: Correctional Officer II
Prerequisite: CJCR 1491
Continued study of the role of a Correctional Officer within the State of Texas Prison System includes day to day operations of Correctional Officers, interactions with offenders, policies and procedures, techniques used by Correctional Officers and includes a lab stressing Unit Tours.
(3 sem hrs; 2 lec, 4 lab)

**CJLE 1506**: Basic Peace Officer I
Basic preparation for a new peace officer. Covers traffic law, accident investigation, traffic direction, intoxicated driver and standard field sobriety testing, Texas Alcohol Beverage Commission, written and verbal communications, multicultural diversity, and Health and Safety Code.
(5 sem hrs; 10.25 hours per week/164 actual clock hours) (CJ 3114, CJ 3155)

**CJLE 1512**: Basic Peace Officer II
Prerequisite: CJLE 1506
Basic preparation for a new peace officer. Covers traffic law, accident investigation, traffic direction, intoxicated driver and standard field sobriety testing, Texas Alcohol Beverage Commission, written and verbal communications, multicultural diversity, and Health and Safety Code.
(5 sem hrs; 10.25 hours per week/164 actual clock hours) (CJ 3123, CJ 3165)

**CJLE 1518**: Basic Peace Officer III
Prerequisites: CJLE 1506
Basic preparation for a new peace officer. Covers Spanish for peace officers, use of force law and options, emergency medical care, emergency communications, family violence, and mechanisms of arrest.
(5 sem hrs; 9 hours per week/144 actual clock hours) (CJ 3134)

**CJLE 1524**: Basic Peace Officer IV
Prerequisites: CJLE 1506
Basic preparation for a new peace officer. Covers criminal investigation topics, victims of crime, firearms training, driving, hazardous material recognition, and problems solving for law enforcement.
(5 sem hrs; 10.25 hours per week/164 actual clock hours) (CJ 3134, CJ 3175)

**CJLE 1429**: Basic Peace Officer V
Prerequisite: CJLE 1506
Basic preparation for a new peace officer. Includes patrol procedures and a review of entire basic peace officer training to prepare for the state licensing exam.
(4 sem hrs; 4 hours per week/64 actual clock hours)

**DANCE**

**DANC 1112**, **1113**, **2112**, **2113**: Dance Practicum
Participation in major productions each semester: musical theater, opera workshop, dance concerts, etc.
(1 sem hr; 3 lab) (DANCE 3111, 3121, 4111, 4121)

**DANC 1147**, **1148**: Jazz I and II
A study of fundamental jazz techniques, including isolation, stretches and jazz combinations.
(1 sem hr; 3 lab) (DANCE 3131, 3141)

**DANC 1245**, **1246**: Modern Dance I and II
A study of contemporary movement techniques that train the body to move in a sound and correct manner. Includes creative exercises and improvisational techniques.
(2 sem hrs; 1 lec, 3 lab) (DANCE 3212, 3222)

**DANC 1341**, **1342**: Ballet I and II
(Ballet II continuation of Ballet I)
Training in the techniques of classical ballet with emphasis on coordination, flexibility, balance, precision, alignment of the spine, strength and endurance exercises.
(3 sem hrs; 2 lec, 4 lab) (DANCE 3313, 3323)

**DANC 2147**, **2148**: Jazz III and IV
The continuation of Jazz movements begun in earlier sequence with greater stress on style and finished dance works.
(1 sem hr; 1 lec, 3 lab) (DANCE 4131, 4141)

**DANC 2245**, **2246**: Modern Dance III and IV
Prerequisites: DANC 1245, DANC 1246
A continuation of Modern Dance movements begun in Dance 3212, 3222. Includes composition studies and expands the techniques of improvisation.
(2 sem hrs; 1 lec, 3 lab) (DANCE 4212, 4222)
DANC 2303*, 2304*: Dance Survey I and II
A survey of the history and developments of theatrical dancing. Emphasis on the major figures involved in the evolution of dance, the philosophical ideas that shaped the evolution and the process involved in the creation of dances by the major contemporary choreographers.
(3 sem hrs; 3 lec) (DANCE 3493, 3503)#

DANC 2341*, 2342*: Ballet III and IV
Prerequisites: DANC 1341, DANC 1342
(Ballet IV continuation of Ballet III)
A continuation of classical ballet training with emphasis on centre work.
(3 sem hrs; 2 lec, 4 lab) (DANCE 4313, 4323)#

DENTAL HYGIENE

DHYG 1207: General and Dental Nutrition
General nutrition and nutritional biochemistry with emphasis on the effects of nutrition, dental health, diet and application of counseling strategies.
(2 sem hrs; 2 lec)

DHYG 1215: Community Dentistry
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.
(2 sem hrs; 1 lec 4 lab)

DHYG 1123: Dental Hygiene Practice
Prerequisites: DHYG 1261, DHYG 2331
Corequisite: DHYG 2360
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.
(1 sem hr; 1 lec)

DHYG 1227: Preventive Dental Hygiene Care
The dental hygienist in the dental health care system emphasizing the basic concepts of disease prevention and health promotion. Communication and behavior modification skills are presented to facilitate the role of the dental hygienist as an educator.
(2 sem hrs; 1 lec, 3 lab)

DHYG 1235: Pharmacology for the Dental Hygienist
Classes of drugs and their uses, actions, interactions, side effects, contraindications, and systemic and oral manifestations with emphasis on dental applications.
(2 sem hrs; 2 lec)

DHYG 1239: General and Oral Pathology
Prerequisites: BIOL 2401, BIOL 2402
Disturbances in human body development, diseases of the body, and disease prevention measures with emphasis on the oral cavity and associated structures.
(2 sem hrs; 2 lec, 1 lab)

DHYG 1260: Clinical - Dental Hygienist I
Prerequisites: DHYG 1301, DHYG 1431
Corequisite: DHYG 2201
A health-related work-based learning experience that enables the student to apply specialized occupation theory, skills and concepts. Direct supervision is provided by the clinical profession.
(2 sem hrs; 12 clinic)

DHYG 1261: Clinical - Dental Hygienist II
Prerequisites: DHYG 1260, DHYG 2201, DHYG 1304, DHYG 1301
A health-related work-based learning experience that enables the student to apply specialized occupation theory, skills and concepts. Direct supervision is provided by the clinical profession.
(2 sem hrs; 12 clinic)

DHYG 1301: Orofacial Anatomy, Histology and Embryology
The histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification.
(3 sem hrs; 2 lec, 4 lab)

DHYG 1304: Dental Radiology
Radiation physics, biology, hygiene, and safety theories with an emphasis on the fundamentals of oral radiographic techniques and interpretation of radiographs. Include exposure of intra-oral radiographs, quality assurance, radiographic interpretation, patient selection criteria, and other ancillary radiographic techniques.
(3 sem hrs; 2 lec, 4 lab)

DHYG 1311: Periodontology
Prerequisites: BIOL 2401, BIOL 2402
Normal and disease periodontium including the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics in a contemporary private practice setting.
(3 sem hrs; 3 lec)

DHYG 1319: Dental Materials
Prerequisite: CHEM 1406 or consent of department chair
Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry.
(3 sem hrs; 2 lec, 3 lab)

DHYG 1431: Preclinical Dental Hygiene
Foundational knowledge for performing clinical skills on patients with emphasis on principles, procedures, and professionalism for performing comprehensive oral prophylaxis.
(4 sem hrs; 2 lec, 6 lab)

DHYG 2201: Contemporary Dental Hygiene Care I
Corequisite: DHYG 1260
Dental hygiene care for the medically or dentally compromised patient with emphasis on supplemental instrumentation techniques.
(2 sem hrs; 2 lec, 1 lab)
DHYG 2261: Clinical - Dental Hygienist IV  
*Prerequisites: DHYG 1123, DHYG 2360*  
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.  
(2 sem hrs; 12 clinic)

DHYG 2331: Contemporary Dental Hygiene Care II  
*Prerequisites: DHYG 1260, DHYG 2201*  
Corequisite: DHYG 1261  
Dental hygiene care for the medically or dentally compromised patient with emphasis on advanced instrumentation techniques.  
(3 sem hrs; 3 lec)

DHYG 2360: Clinical - Dental Hygienist III  
*Prerequisites: DHYG 1261, DHYG 2331*  
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.  
(3 sem hrs; 18 clinic)

**DENTIST AIDE**  
**DNTA 1266: Practicum (or Field Experience) - Dental Assistant I**  
*Prerequisite: DNTA 1166*  
Practical, workplace training supported by an individualized learning plan developed by the employer, college and student. The guided external experiences are unpaid.  
(2 sem hr; 16 clinic)

**DNTA 1241: Dental Laboratory Procedures**  
The study of dental laboratory procedures including skills associated with chairside assisting, pouring, trimming, and polishing study casts; preliminary impressions; and fabricating provisional restorations.  
(2 sem hrs; 1 lec, 2 lab)

**DNTA 1345: Preventive Dentistry**  
The study and prevention of dental diseases, community dental health research and projects, fluoridation, nutrition and nutritional counseling, visual aids, and oral hygiene instruction for dental patients.  
(3 sem hrs; 2 lec, 2 lab)

**DNTA 1249: Dental Radiology in the Clinic**  
*Prerequisite: DNTA 1205*  
The practical application of exposing, processing and mounting of dental radiographs obtained by utilizing various radiographic techniques. This course will encompass critical evaluation of all procedures.  
(2 sem hrs; 1 lec, 3 lab)

**DNTA 1251: Dental Office Management**  
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.  
(2 sem hrs; 1 lec, 3 lab)

**DNTA 1301: Dental Materials**  
The theory of the structure, properties, and procedures, related to dental materials. Safety and universal precautions will be employed. Specific safety and universal precautions for the lab will be practiced.  
(3 sem hrs; 2 lec, 2 lab)

**DNTA 1205: Dental Radiology I**  
Introduction to radiation physics, protection, the operation of radiographic equipment, exposure, processing and mounting of dental radiographs.  
(2 sem hrs; 2 lec)

**DNTA 1311: Dental Science**  
An introduction to anatomical systems with emphasis placed on head and neck anatomy. Topics include the physiology and morphology of the deciduous and the permanent teeth along with basic dental terminology.  
(3 sem hrs; 2 lec, 2 lab)

**DNTA 1415: Chairside Assisting**  
An introduction to pre-clinical chairside procedures, instrumentation, infection and hazard control protocol, equipment safety and maintenance.  
(4 sem hrs; 3 lec, 2 lab)

**DNTA 1453: Dental Assisting Applications**  
*Prerequisite: DNTA 1415*  
This course incorporates comprehensive procedures and applications for the general and specialty areas of dentistry.  
(4 sem hrs; 3 lec, 4 lab)

**DIESEL MECHANICS TECHNOLOGY**  
**DEMR 1329: Preventative Maintenance**  
An introductory course designed to provide the student with basic knowledge of proper servicing practices. Content includes record keeping and condition of major systems.  
(3 sem hrs; 2 lec, 2 lab) (DMT 3043)#

**DEMR 1301: Shop Safety and Procedures**  
A study of shop safety, rules, basic shop tools, and test equipment.  
(3 sem hrs; 3 lec) (DMT 3003)#

**DEMR 1323: Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair**  
Introduction to heating, ventilation, and air conditioning theory, testing, and repair. Emphasis on refrigerant reclamation, safety procedures, specialized tools, and repairs.  
(3 sem hrs; 2 lec, 2 lab) (DMT 3013)#

**DEMR 1406: Diesel Engine I**  
An introduction to the basic principles of diesel engines and systems.  
(4 sem hrs; 2 lec, 6 lab) (DMT 4006)#

**DEMR 1421: Power Train I**  
Introduction to fundamentals, repair, and theory of power trains including clutches, transmissions, drive shafts, and differentials. Emphasis on inspection and repair.  
(4 sem hrs; 2 lec, 6 lab) (DMT 3053)#

**DEMR 1442: Power Train Applications I**  
In-depth coverage of the mechanics and theory of power trains. Emphasis on disassembly, inspection, and repair of power train components.  
(4 sem hrs; 2 lec, 6 lab) (DMT 3054)#

---

*Texas Common Course Number*  

*Previous prefix and number*
DEMR 1449: Diesel Engine II
An in-depth coverage of disassembly, repair, identification, evaluation, and reassembly of diesel engines.
(4 sem hrs; 2 lec, 6 lab) (DMT 4003)#

DEMR 2331: Advanced Brake Systems
An advanced brake system course for diesel powered equipment. Advanced concepts and schematics including anti-lock, air, pneumatic, and hydraulic brake systems and related components.
(3 sem hrs; 1 lec, 4 lab)

DEMR 2334: Advanced Diesel Tune-Up and Troubleshooting
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.
(3 sem hrs; 2 lec, 2 lab) (DMT 4053)#

DEMR 2348: Failure Analysis
An advanced course designed for analysis of typical part failures on equipment.
(3 sem hrs; 2 lec, 2 lab)

DEMR 2432: Electronic Controls
Advanced skills in diagnostic and programming techniques of electronic control systems.
(4 sem hrs; 2 lec, 6 lab) (DMT 4013)#

DRAFTING
DFTG 1305: Technical Drafting
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.
(3 sem hrs; 2 lec, 2 lab)

DFTG 1309: Basic Computer-Aided Drafting
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; as well as input and output devices.
(3 sem hrs; 2 lec, 2 lab)

DFTG 1333: Mechanical Drafting
Prerequisites: DFTG 1305 or consent of department chair
An intermediate course covering working detail drawings with proper dimensioning and tolerances. Also included will be the use of sectioning techniques, common fasteners, isometrics and obliques in the preparation of assembly drawings, including bill of materials.
(3 sem hrs; 2 lec, 2 lab)

DFTG 2323: Pipe Drafting
Prerequisites: DFTG 1305, DFTG 1309 or consent of department chair
A study of pipe fittings, symbols, specifications and their applications to a piping process system. This application will be demonstrated through the creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics.
(3 sem hrs; 2 lec, 2 lab)

DFTG 2321: Topographical Drafting
Prerequisite: DFTG 1352 or consent of department chair
A course in map drafting. Emphasis is given to plotting of surveyors’ field notes, plotting elevations, contour drawings, plan and profiles, and laying out traverses.
(3 sem hrs; 2 lec, 2 lab)

DFTG 2319: Intermediate Computer-Aided Drafting
Prerequisite: DFTG 1309 or consent of department chair
A continuation of practices and techniques used in basic computer-aided drafting emphasizing batched files, scripted files, customized program menus, and extracted attributes. Introduction to three-dimensional drafting.
(3 sem hrs; 2 lec, 2 lab)

DFTG 1358: Electrical/Electronics Drafting
A study of the principles of layout of electrical and electronic drawings, stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams.
(3 sem hrs; 2 lec, 2 lab)

DFTG 2327: Landscape Drafting
Prerequisites: DFTG 1317, DFTG 1352
A study of site planning and landscape design.
(3 sem hrs; 2 lec, 2 lab)

DFTG 1370: Microstation I
Prerequisite: DFTG 1305 or consent of department chair
Students shall learn the basics of the Microstation software. They will become familiar with the user interface; set up a work space and views for a 2D drawing; use 2D drawing and editing commands; apply patterns, dimensions, and text to a drawing; and learn basics of file management and plotting.
(3 sem hrs; 2 lec, 2 lab)

DFTG 1372: Microstation II
Prerequisite: DFTG 1371 or consent of department chair
Students shall learn advanced Microstation topics, including working with cells, customizing the user interface, and creating 3-D models.
(3 sem hrs; 2 lec, 2 lab)

DFTG 1376: Rendering
Prerequisite: DFTG 1352 or consent of department chair
Students will cover 3D rendering software basics including viewing, walk-throughs, lofting, shaping, materials, lighting/shading, and related topics.
(3 sem hrs; 2 lec, 2 lab)

DFTG 1391: Special Topics in Drafting
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.
(3 sem hrs; 2 lec, 2 lab)
ECON 1301*: Introduction to Economics
A course for students who have active interest in field other than business administration or economics. Emphasis in developing an understanding of man in relation to his economic environment; purpose, functions, and results of a capitalistic system and understanding of current economic problems.
(3 sem hrs; 3 lec) (ECON 3313)"

ECON 2301*: Principles of Economics I
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331. Analysis of the economy as a whole, national income, money and banking, public finance, international trade, and related current problems, macroeconomics.
(3 sem hrs; 3 lec) (ECON 4373)"

ECON 2302*: Principles of Economics II
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331 Composition and pricing of national output, distribution of income, and related current economic problems, microeconomics.
(3 sem hrs; 3 lec) (ECON 4383)"

EDUCATION
EDUC 1301*: Introduction to the Teaching Profession
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331. Overview of the teaching profession and requirements. Provides introduction to and analysis of the culture of schooling and classrooms. Includes opportunities to observe in P-12 classrooms. Course will align with the State Board for Educator Certification Pedagogy and Professional Responsibilities and Technology Application standards.
(3 sem hrs; 2 lec; 2 lab)
**CETT 1403: DC Circuits**  
*Prerequisite: MATH 1314 or consent of instructor*  
A study of the fundamentals of direct current including Ohm’s law, Kirchoff’s laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements. Accompanying Computer Assisted instruction lab exposes students to a safe working environment to further instruction through performance-based activities.  
(4 sem hrs; 3 lec, 2 lab) (EST 3023)

**CETT 1405: AC Circuits**  
*Prerequisite: CETT 1403 or consent of instructor*  
A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance.  
(4 sem hrs; 3 lec, 2 lab) (EST 3113 or ELTRO 3113)

**CETT 1425: Digital Fundamentals**  
An entry level course in digital electronics covering number systems, binary mathematics, digital codes, logic gates, Boolean algebra, and combinational logic. Emphasis on circuit logic analysis and troubleshooting digital circuits.  
(4 sem hrs; 3 lec, 2 lab) (EST 3123)

**CETT 1329: Solid State Devices**  
*Prerequisite: MATH 1314 or consent of instructor*  
A study of diodes and bipolar semiconductor devices, including analysis of static and dynamic characteristics, bi techniques, and thermal considerations of solid state devices.  
(3 sem hrs; 2 lec, 2 lab) (EST 3043 or ELTRO 3023)

**CETT 1341: Solid State Circuits**  
*Prerequisite: CETT 1329*  
A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements, and analysis. Introduction to basic audio amplifiers, radio frequency, amplifiers and OP amps.  
(3 sem hrs; 2 lec, 2 lab) (EST 3163)

**CETT 1345: Microprocessors**  
*Prerequisite: CETT 1425 or consent of instructor*  
An introductory course in digital microprocessor software and hardware; its architecture, timing sequence, operation, and programming; and discussion of appropriate software diagnostic language and tools.  
(3 sem hrs; 2 lec, 2 lab) (EST 3083 or ELTRO 4603)

**CETT 1380: Cooperative Education - Computer Engineering Technology/Technician**  
*Prerequisite: EST Core or consent of instructor*  
Career related activities encountered in the student’s area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience.  
(3 sem hrs; 1 lec, 20 hrs work/week) (EST 5013)

**CETT 1391: Special Topics in Computer Engineering Technology/Technician**  
*Prerequisite: EST Core or consent of instructor*  
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.  
(3 sem hrs, 3 lec.) (EST 5003)

**CETT 2189/2289/2389: Education Work Experience (Internship)**  
*Prerequisite: Consent of instructor*  
Integrates on-campus study with practical, hands-on, experience in the student’s specialty area. The student and instructor will set specific goals and objectives for the internship.  
(1 sem hr: 6 hrs work/week - 2 sem hrs; 12 hrs work/week - 3 sem hrs; 18 hrs work/week)

**CETT 2248/2249: Research and Project Design I and II**  
*Prerequisite: Sophomore standing in Electronics Engineering Technology or consent of instructor*  
Principles of electrical/electronic design encompassing schematics wiring diagrams, materials lists, operating characteristics, completion schedules, and cost estimates. Laboratories to accompany the material in sophomore Electronics Engineering Technology courses. The capstone courses for the Electronics Engineering Technology program.  
(2 sem hrs; 5 lab) (ELTRO 4343, 4353)

**CETT 2335: Advanced Microprocessors**  
*Prerequisite: CETT 1341*  
An advanced course utilizing the microprocessor in control systems and interfacing. Emphasis on microprocessor hardware and implementation of peripheral interfacing.  
(3 sem hrs; 3 lec, 1 lab) (ELTRO 4613)

**CETT 2439: Amplifier Analysis**  
*Prerequisite: CETT 1329 or consent of instructor*  
Advanced study of electronic amplifiers applications including operational amplifiers, audio amplifiers, video amplifiers, and other high frequency amplifiers. Problem solving techniques required for operational amplifiers and field-effect transistor circuits.  
(4 sem hrs; 3 lec, 2 lab) (ELTRO 3104)

**CPMT 1311: Introduction to Computer Maintenance**  
A study of the information for the assembly of a microcomputer system. Emphasis on the evolution of microprocessors and microprocessor bus structures. Add additional cards and devices to convert the microcomputer to multimedia.  
(3 sem hrs; 2 lec, 2 lab) (EST 4173)

**CPMT 1343: Microcomputer Architecture**  
An intermediate level course in computer characteristics and subsystem operations, timing, control circuits, and internal input/output controls. Expands systems to add memory, additional drives, monitor, modem, printer.  
(3 sem hrs; 2 lec, 2 lab) (EST 4023)

**CPMT 1345: Computer Systems Maintenance**  
Examination of the functions of the components within a computer system. Development of skills in the use of test equipment and maintenance aids.  
(3 sem hrs; 2 lec, 2 lab) (EST 4043)
CPMT 1347: Computer System Peripherals
Principles and practices involved in computer system troubleshooting techniques, programs, and the use of specialized test equipment. Expands systems to add memory, additional drives, monitors, modems, printers or plotters.
(3 sem hrs; 2 lec, 2 lab) (EST 4033)#

CPMT 1349: Computer Networking Technology
A beginning course in computer networking with a focus on networking fundamentals, terminology, hardware, software, and network architecture. A study of local/wide area networking concepts and networking installations of operations.
(3 sem hrs; 2 lec, 2 lab) (EST 4313 or TCC 4153)#

CPMT 2333: Computer Integration
An advanced course in integration of hardware, software, and applications. Customization of computer systems for specific applications in engineering, multi-media, or data acquisition.
(3 sem hrs; 2 lec, 2 lab) (EST 4013)#

CPMT 2337: Microcomputer Interfacing
An interfacing course exploring the concepts and terminology involved in interfacing the internal architecture of the microcomputer with commonly used external devices.
(3 sem hrs; 2 lec, 2 lab) (EST 4083)#

CPMT 2349: Advanced Computer Networking Technology
An in-depth study of network technology with emphasis on network operating systems, network connectivity, hardware, and software. Mastery of implementation, troubleshooting, and maintenance of LAN and/or WAN network environments.
(3 sem hrs; 2 lec, 2 lab) (EST 4373)#

EECT 2439: Communications Circuits
Prerequisite: CETT 1329
A study of communications systems with emphasis on amplitude modulation, frequency modulation, phase modulation, and digital pulse modulation. Discussion of several types of modulators, demodulators, receivers, transmitters and transceivers. Includes noise transmission lines, antennas, and propagation.
(4 sem hrs; 3 lec, 2 lab) (ELTRO 4303)

INTC 2336: Distributed Control and Programmable Logic
Prerequisite: CETT 1329
An overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicators. Functions of digital system in a process control environments.
(3 sem hrs; 2 lec, 2 lab) (ICT 4203)

ITCC 1302: CCNA 1: Networking Basics
Instruction in networking essential concepts including the OSI reference model, proper selection and installation of network cable. Define the five steps of data encapsulation and the function of the TCP/IP Network-Layer Protocol.
(3 sem hrs; 2 lec, 2 lab) (ITNW 1333)

ITCC 1306: CCNA 2: Router and Routing Basics
Prerequisite: ITCC 1302
Preparation to set-up, configure, use, and support Transmission Control Protocol/Internet Protocol (TCP/IP). Create routers to manage subnets and install security measures on routers.
(3 sem hrs; 2 lec, 2 lab) (ITNW 2321)

ITCC 1342: CCNA 3: Switching Basic & Intermediate Routing
Prerequisite: ITCC 1306
Configure router for networks in the IPX environment. Describe and implement LAN segmentation bridges, switches, and routers. Identify and solve networking congestion problems.
(3 sem hrs; 2 lec, 2 lab) (ITNW 2313)

ITCC 1346: CCNA 4: WAN Technologies
Prerequisite: ITCC 1342
Describe and configure Wide Area Network (WAN) services. Encapsulate Wide Area Network data. Identify and use the ISDN and HDLC.
(3 sem hrs; 2 lec, 2 lab) (ITNW 2335)

ITNW 2301: Administering Servers
Development of knowledge and skills necessary to perform post-installation and day-to-day administration tasks in a single-domain or multiple-domain Windows NT based network.
(3 sem hrs; 2 lec, 2 lab) (EST 4353)#

ITNW 2305: Network Administration
Preparation to effectively manage a Novell NetWare network. Topics include network components, user accounts and groups, network file systems, file system security, and network printing.
(3 sem hrs; 2 lec, 2 lab) (EST 4363)#

ITNW 2309: Network Administration for IntraNET
Preparation to competently perform the role of network administrator or system manager in a Novell IntraNetWare network.
(3 sem hrs; 2 lec, 2 lab) (EST 4323)#

ITNW 2339: Advanced Network Administration for Novell NetWare
Introduction to advanced administrative concepts and tasks related to server and client management and performance. Enhancement of network management and monitoring skills and preparation to install and configure a network operating system.
(3 sem hrs; 2 lec, 2 lab) (EST 4343)#

ITNW 1343: Network Technologies
Foundation course for supporting a network operating system. Skill development in installing, configuring, customizing, optimizing, networking, integrating, and troubleshooting a network operating system.
(3 sem hrs; 2 lec, 2 lab)

ITNW 1342: Information Technology Security
Instruction in security for network hardware, software, and data including physical security, backup procedures, firewalls, encryption and protection from viruses.
(3 sem hrs; 3 lec)
ITNW 1343: Network Technologies
Prerequisite: ITSY 2341 or consent of instructor
An introduction to Network Proxy Services including installation, configuration, and troubleshooting basic architecture, controlling Internet access, administration, configure the cache, and methods of improving performance.
(3 sem hrs; 3 lec, 1 lab)

ITSY 1342: Information Technology Security
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 networking security activities.
(3 sem hrs; 3 lec, 1 lab)

ITSY 2341: Security Management Practices
Prerequisite: ITSY 2301 or consent of instructor
In-Depth coverage of security management practices, including asset evaluation and risk management; cyber law and ethics issues; policies and procedures; business recovery and business continuity planning; networking security design; and developing and maintaining a security plan.
(3 sem hrs; 3 lec, 1 lab)

LOTT 1301: Introduction to Fiber Optics
Introductory course in fiber optics and its application including advantages for fiber, light transmission in fiber, types of fiber, sources, detectors, and connectors.
(3 sem hrs; 2 lec, 2 lab) (EST 3193)

QCTC 1303: Quality Control
Information on quality control principles and applications. Designed to introduce the student to the quality control profession.
(3 sem hrs; 3 lec) (EST 4203)

ELECTRONICS ENGINEERING TECHNOLOGY - SEMICONDUCTOR MANUFACTURING TECHNOLOGY

SMFT 2335: Vacuum Technology
Prerequisite: Sophomore standing in SMT program
Skill development in vacuum technology, including vacuum principles, pumping systems, gauging, leak detection, and safety precautions.
(3 sem hrs; 2 lec, 4 lab) (SMT 4113)

SMFT 1343: Semiconductor Manufacturing Technology I
Prerequisite: Sophomore standing in SMT program
A study of the processes, materials, and equipment used in the manufacturing of semiconductors. Including an overview of the semiconductor industry, related terminology, and standard practice. One of the two capstone courses in the semiconductor manufacturing technology curriculum.
(3 sem hrs; 2 lec, 4 lab) (SMT 4223)

SMFT 2343: Semiconductor Manufacturing Technology II
Prerequisite: SMFT 1343
Continuation of SMFT 1343 covering the processes, materials, and equipment used in the manufacturing of semiconductors. Topics address process-yield analysis and process troubleshooting. The final capstone course in the semiconductor manufacturing curriculum.
(3 sem hrs; 2 lec, 4 lab) (SMT 4243)

EMERGENCY MEDICAL SERVICES PROFESSIONS

EMSP 1147: Pediatric Advanced Life Support
Prerequisite: Open to any licensed physician, nurse, or respiratory therapist with a current American Heart Association Health Care Provider BCLS Card or concurrent enrollment in EMSP 2267
A course in a system of protocols for management of the pediatric experiencing difficulties in medical and/or trauma related emergencies.
(1 sem hr; 1 lec, 1 lab)

EMSP 1149: Pre-Hospital Trauma Life Support
Prerequisite: Open to any licensed physician, L.V.N., R.N., or EMSP 1163, EMSP 1501 plus Texas EMT-B and/or NREMT-A Certification
Intense skill development in emergency field management, systematic rapid assessment, resuscitation, packaging, and transportation of patients. Includes experience necessary to meet initial certification requirements.
(1 sem hr; 1 lec, 1 lab)

EMSP 1163: Clinical - Emergency Medical Technology/Technician
Corequisite: EMSP 1501 of same course section
A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty.
(1 sem hr; 3 clinic)

EMSP 1438: Introduction to Advanced Practice
Prerequisite: EMSP 1163, EMSP 1501 plus Texas EMT-B and/or NREMT-A Certification.
Corequisites: EMSP 1455, EMSP 1456
An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital.
(4 sem; 3 lec, 3 lab) (PMT 3204)

EMSP 1455: Trauma Management
Prerequisite: EMSP 1163, EMSP 1501 plus Texas EMT-B and/or NREMT-A Certification.
Corequisites: EMSP 1438, EMSP 1456
A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with traumatic injuries.
(4 sem hrs; 3 lec, 3 lab) (PMT 3214)

EMSP 1456: Patient Assessment and Airway Management
Prerequisite: EMSP 1163, EMSP 1501 plus Texas EMT-B and/or NREMT-A Certification.
Corequisites: EMSP 1438, EMSP 1455
A detailed study of the knowledge and skills to reach competence in performing patient assessment and airway management.
(4 sem hrs; 3 lec, 3 lab) (PMT 3224)

EMSP 1501: Emergency Medical Technician - Basic
Corequisite: EMSP 1163 of same course section
Introduction to the level of Emergency Medical Technician (EMT)-Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an ambulance service or other specialized services.
(5 sem hrs; 4 lec, 4 lab) (PMT 3115)
EMSP 2135: Advanced Cardiac Life Support  
Prerequisite: Open to any licensed physician, nurse or respiratory therapist with a current American Heart Association Health Care Provider BCLS Card, or concurrent enrollment in EMSP 2444  
Skill development for professional personnel practicing in critical care units, emergency departments, and paramedic ambulances. Establishes a system of protocols for management of the patient experiencing cardiac difficulties.  
(1 sem hr; 1 lec, 1 lab)

EMSP 2332: Mass Disaster Response  
Prerequisite: Previous completion of, or concurrent enrollment in, any allied health or nursing program  
Preparation for volunteer response to radiological, biological, chemical, or explosive terrorist attack or any natural public health disaster. Topics discussed are radiological, biological, chemical, and explosive agents; their dissemination, triage, and treatment of victims. Discussions also include the incident command system; safety and security; assessment of hazards, support services and agencies; evacuation; and recovery.  
(3 sem hrs; 3 lec)

EMSP 2348: Emergency Pharmacology  
Prerequisite: EMS Certification at or above the level of EMT-Basic  
A comprehensive course covering all aspects of the utilization of medications in treating emergency situations. Course is designed to compliment Cardiology, Special Populations, and Medical Emergency courses.  
(3 sem hrs; )

EMSP 2266: Practicum - Field Experience I  
Prerequisites: EMSP 1438, EMSP 1455, EMSP 1456, EMSP 1149  
Practical, general workplace supported by an individualized learning plan developed by the employer, college, and student. Current practice as well as rules set forth by the Texas Department of Health will form the outline for specific activities.  
(2 sem hrs; 18 clinic) (PMT 3233)

EMSP 2267: Practicum - Field Experience II  
Prerequisites: EMSP 2434, EMSP 2430, EMSP 2444, EMSP 2135, BIOL 2402  
Practical, general workplace supported by an individualized learning plan developed by the employer, college, and student. Current practice as well as rules set forth by the Texas Department of Health will form the outline for specific activities.  
(2 sem hrs; 18 clinic) (PMT 4324)

EMSP 2300: Methods of Teaching - Emergency Medical Service  
Prerequisite: EMS certification at or above the level of EMT-Basic  
Instruction in teaching methodology for instructors of emergency medical services.  
(3 sem hr; 3 lec)

EMSP 2430: Special Populations  
Prerequisites: EMSP 2266, BIOL 2401, MATH from approved list  
Corequisites: EMSP 2434, EMSP 2444  
A detailed study of the knowledge of skills necessary to reach competence in the assessment and management of ill or injured patients in nontraditional populations.  
(4 sem hrs; 3 lec, 3 lab) (PMT 4314)

EMSP 2434: Medical Emergencies  
Prerequisites: EMSP 2266, BIOL 2401, MATH from approved list  
Corequisites: EMSP 2430, EMSP 2444  
A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with medical emergencies.  
(4 sem hrs; 3 lec, 3 lab) (PMT 4315)

ENGINEERING  
ENGR 1304*: Engineering Graphics  
Prerequisite: One year high school drafting or DFTG1309 or consent of instructor  
Use of orthographic principles for engineering, drafting and architecture majors. Basic orthographic projection principles, auxiliary views, intersection of planes, parallelism, perpendicularity, mining and engineering problems, concurrent vectors, plane tangencies, intersection of surfaces, developments, shades, shadows and perspective projections. Introduction to computer graphics.  
(3 sem hrs; 2 lec, 3 lab) (ENGR 3123)

ENGR 1307*: Surveying  
Prerequisite: MATH 1316  
Use of instruments; direct and tachometric linear measurement; elevation and angle measurement; determining directions; traverses, errors and adjustment; area and earthwork; calculations, observations for meridian, land surveying.  
(3 sem hrs; 2 lec, 3 lab) (ENGR 4163)

ENGR 2301*: Engineering Mechanics I - Fall Only  
Prerequisites/Corequisites: PHYS 2425, MATH 2414 or concurrent enrollment in MATH 2414  
Vectors, vector algebra, forces, force systems, equilibrium of rigid bodies, analysis of trusses, friction, particle kinematics, particle kinetics, particle work and energy.  
(3 sem hrs; 2 lec, 2 lab) (ENGR 4213)

ENGR 2302*: Engineering Mechanics II - Spring Only  
Prerequisites/Corequisites: ENGR 2301, Math 2415 or concurrent enrollment in MATH 2415  
Particle dynamics, particle impulse and momentum, area and mass moments, rigid body kinetics, rigid body dynamics including forces, work, energy, impulse and momentum.  
(3 sem hrs; 2 lec, 2 lab) (ENGR 4223)
ENGR 2405*: Electrical Circuits - Spring Only
Prerequisites/Corequisites: PHYS 2426, MATH 2415 or concurrent enrollment in MATH 2415
Linear circuit elements; circuit analysis, transient and steady state; network-theorems; laboratory measurement of circuit phenomena. For engineering majors.
(4 sem hrs; 3 lec, 3 lab) (ENGR 4254)#

COSC 1317*: Computer Programming for Engineers and Scientists
Prerequisites/Corequisites: A grade of C or higher in MATH 2413
Current engineering programming language (C, C++ or other); problems in engineering applications and numerical analysis.
(3 sem hrs; 3 lec, 3 lab) (MATH 4823)#

COSC 1436*: Programming Fundamentals I
Prerequisites/Corequisites: A grade of C or higher in MATH 1348 or Math 2412 or consent of the Department Chair
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.
(4 sem hrs; 3 lec, 2 lab)

COSC 1437*: Programming Fundamentals II
Prerequisites: A grade of C or higher in COSC 1436
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. Includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering.
(4 sem hrs; 3 lec, 2 lab)

COSC 2436*: Programming Fundamentals III
Prerequisites: A grade of C or higher in COSC 1437
Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis.
(4 sem hrs; 3 lec, 2 lab)

COSC 2425*: Computer Organization and Assembly Language Programming
Prerequisites: A grade of C or higher in COSC 1437
Syntax and semantics of a typical assembly language; macros and macro processors; design, construction, and execution of assembly language programs; data representation; and addressing techniques.
(4 sem hrs; 3 lec, 2 lab)

ENGLISH
ENGL 0301: Basic Grammar and Writing I
Prerequisite: Scores on a state-approved test indicating college-level writing skills
Practice in formulating simple and compound sentences, simple tense formation, basic subject-verb agreement, punctuation and basic spelling rules. Practice in writing clear, logically developed paragraphs using standard American English.
(3 sem hrs; 3 lec, 1 lab)

ENGL 0302: Basic Grammar and Writing II
Prerequisite: Scores on a state-approved test indicating college-level reading and writing skills or a grade of C or higher in RDNG 0301 and ENGL 0301
A review of skills taught in English 0301: Basic Grammar and Writing I. Practice in writing compound and complex sentences; mastering subject-verb agreement and pronoun usage; using all punctuation marks; and overcoming major spelling problems. Emphasis on paragraph skills taught in English 0301: Basic Grammar and Writing I and short essays in standard American English.
(3 sem hrs; 3 lec, 1 lab)

ENGL 1301*: Freshman Composition I
Prerequisite: Scores on a state-approved test indicating college-level reading and writing skills or a grade of C or higher in RDNG 0331 and ENGL 0302
Principles of effective writing, emphasizing organization of materials to produce a unified essay that supports convincingly a thesis statement. Review of conventional elements of writing and introduction to rhetorical analysis.
(3 sem hrs; 3 lec, 1 lab) (ENGL 3043)#

ENGL 1302*: Freshman Composition II
Prerequisite: ENGL 1301
Extends and refines the writing skills developed in ENGL 1301. Readings in fiction, poetry, drama. Focus on rhetorical patterns, literary analysis, research methods, and documentation.
(3 sem hrs; 3 lec, 1 lab) (ENGL 3053)#

ENGL 2307*: Creative Writing
Technique of writing and marketing fiction, nonfiction, and poetry; analysis of stories, articles, and poems. Emphasis on student writing, exercises in market analysis, manuscript preparation, and submission.
(3 sem hrs; 3 lec) (ENGL 4013)#

ENGL 2311*: Technical Writing
Prerequisite: ENGL 1301
Principles, techniques, and skills needed for college-level scientific, technical, or business writing. Includes units in web page design, Power-Point presentations, and collaborative writing.
(3 sem hrs; 3 lec) (ENGL 4063)#

ENGL 2322*: Masterworks of English
Prerequisites/Corequisites: ENGL 1302, or 1301 with a grade of C or higher and concurrent enrollment in ENGL 1302
Principal works of major English writers from the beginnings through Johnson.
(3 sem hrs; 3 lec) (ENGL 4023)#

ENGL 2323*: Masterworks of English
Prerequisites/Corequisites: ENGL 1302, or 1301 with a grade of C or higher and concurrent enrollment in ENGL 1302
Principal works of major English writers from Blake through Auden.
(3 sem hrs; 3 lec) (ENGL 4033)#
ENGL 2327*: American Literature: Beginnings to the Civil War
Prerequisites/Corequisites: ENGL 1302, or ENGL 1301 with a grade of C or higher and concurrent enrollment in ENGL 1302
Readings in the significant works of American literature before the Civil War, including essays, poetry, drama, and short fiction.
(3 sem hrs; 3 lec) (ENGL 4073)#

ENGL 2328*: American Literature: Civil War to the Present
Prerequisites/Corequisites: ENGL 1302, or ENGL 1301 with a grade of C or higher and concurrent enrollment in ENGL 1302
Readings in the significant works of American literature during and after the Civil War, including essays, poetry, drama, and short fiction.
(3 sem hrs; 3 lec) (ENGL 4083)#

ENGL 2331*: Literature of the Non-Western World
Prerequisites/Corequisites: ENGL 1302, or ENGL 1301 with a grade of C or higher and concurrent enrollment in ENGL 1302
Readings from a non-European tradition.
(3 sem hrs; 3 lec) (ENGL 4093)#

ENGL 2332*: Literature of the Western World
Prerequisites/Corequisites: ENGL 1302, or ENGL 1301 with a grade of C or higher and concurrent enrollment in ENGL 1302 (Before the fall semester of 1996 this course was ENGL 4043)
Selected readings in novels and poetry, including works in English, American, and European literature.
(3 sem hrs; 3 lec) (ENGL 4133)#

ENGL 2333*: Literature of the Western World
Prerequisites/Corequisites: ENGL 1302, or ENGL 1301 with a grade of C or higher and concurrent enrollment in ENGL 1302 (Before the fall semester of 1996 this course was ENGL 4053)
Readings in English, American, and European literature, including the epic, drama, and satire.
(3 sem hrs; 3 lec) (ENGL 4123)#

ENGL 2341: Selected Studies in Literature
Prerequisites: ENGL 1302
Intensive reading in single areas unified by genre, theme, major author, period, or geographic region with topic determined each semester.
(3 sem hrs; 3 lec)

ENGLISH AS A SECOND LANGUAGE
ESL 0311: Speaking and Listening I
Develop everyday conversational skills. Emphasis will be placed on vocabulary, pronunciation, and simple sentence patterns.
(3 sem hrs; 3 lec, 3 lab) (ESL 0113)#

ESL 0312: Grammatical Structure I
Emphasis will be placed on identifying parts of speech, capitalization, and punctuation. Grammar usage will be practiced through writing complete sentences
(3 sem hrs; 3 lec, 3 lab) (ESL 0123)#

ESL 0314: Reading I
Study word attack skills through the use of phonics. Emphasis will be placed on vocabulary building and reading comprehension of simple stories.
(3 sem hrs; 3 lec, 3 lab) (ESL 0143)#

ESL 0315: Composition I
Write and recognize simple sentences. Emphasis will be placed on correct subject-verb agreement, punctuation, and capitalization.
(3 sem hrs; 3 lec, 3 lab) (ESL 0133)#

ESL 0321: Speaking and Listening II
Develop and expand conversational and listening skills. Emphasis will be placed on vocabulary, pronunciation, and the use of tenses.
(3 sem hrs; 3 lec, 3 lab) (ESL 0213)#

ESL 0322: Grammatical Structure II
Emphasis will be placed on capitalization, punctuation, and identification of the parts of speech. Grammar usage will be practiced through writing and proofreading.
(3 sem hrs; 3 lec, 3 lab) (ESL 0223)#

ESL 0324: Reading II
Continue to study phonics. Emphasis will be placed on comprehension and increasing vocabulary through usage.
(3 sem hrs; 3 lec, 3 lab) (ESL 0243)#

ESL 0325: Composition II
Write simple and compound sentences on a variety of subjects. Emphasis will be placed on adding details to sentences, subject-verb agreement, and proofreading.
(3 sem hrs; 3 lec, 3 lab) (ESL 0233)#

ESL 0331: Speaking and Listening III
Practice conversational and listening skills through class activities and practice. Emphasis will be placed on idioms and listening comprehension.
(3 sem hrs; 3 lec, 3 lab) (ESL 0313)#

ESL 0332: Grammatical Structure III
Emphasis will be placed on identifying parts of speech in simple, compound, and complex sentences. Grammar usage will be practiced through paragraph writing and proofreading.
(3 sem hrs; 3 lec, 3 lab) (ESL 0323)#

ESL 0334: Reading III
Emphasis will be placed on vocabulary building, word analysis skills, and reading comprehension.
(3 sem hrs; 3 lec, 3 lab) (ESL 0343)#

ESL 0335: Composition III
Write expanded simple, compound, and complex sentences to create a paragraph. Emphasis will be placed on organizing major points and details, writing and recognizing topic sentences, and proofreading.
(3 sem hrs; 3 lec, 3 lab) (ESL 0333)#

ESL 0341: Speaking and Listening IV
Practice conversational and listening skills through class activities and group practice. Emphasis will be placed on idioms and listening comprehension. Special emphasis will be placed on individual speeches.
(3 sem hrs; 3 lec, 3 lab) (ESL 0413)#
ESL 0344: Reading IV
Emphasis will be placed on vocabulary building, work analysis, and read using comprehension through paraphrasing and summarizing.
(3 sem hrs; 3 lec, 3 lab)

ESL 0345: Grammar and Composition IV
Write compositions up to five paragraphs. Emphasis will be placed on content, organization, and mechanics.
(3 sem hrs; 3 lec, 3 lab) (ESL 0433)#

FIRE PROTECTION TECHNOLOGY
FIRS 1171: Firefighter Orientation
Basic Firefighter Certificate program requirements: clothing, equipment, breathing apparatus, school uniform, physical exam and class meeting schedules, opportunities of employment and expectations of students.
(1 sem hr; 1 lec) (FPT 3001)#

FIRS 1301: Firefighter Certification I
An introduction to firefighter safety and development. Topics include Texas Commission on Fire Protection Rules and Regulations, firefighter safety, fire science, personal protective equipment, self contained breathing apparatus, and fire reports and records.
(3 sem hrs; 2 lec, 2 lab) (FPT 3013)#

FIRS 1407: Firefighter Certification II
The study of basic principles and skill development in handling fire service hose and ladders. Topics include the distribution system of water supply, basic building construction, and emergency service communication, procedures, and equipment.
(4 sem hrs; 3 lec, 4 lab) (FPT 3023)#

FIRS 1413: Firefighter Certification III
General principles of fire apparatus, pump operations, fire streams, and public operations as they relate to fundamental development of basic firefighter skills.
(4 sem hrs; 2 lec, 4 lab) (FPT 3034)#

FIRS 1319: Firefighter Certification IV
A study of equipment, tactics, and procedures used in forcible entry, ventilation, salvage, and overhaul. Preparation for certification as a basic firefighter.
(3 sem hrs; 2 lec, 2 lab) (FPT 3043)#

FIRS 1323: Firefighter Certification V
The study of ropes and knots, rescue procedures and techniques, and hazardous materials. Preparation for certification as a basic firefighter.
(3 sem hrs; 2 lec, 4 lab) (FPT 3053)#

FIRS 1329: Firefighter Certification VI
The study of fire inspection techniques and practices, public transportation, fire cause determination. Topics include fire protection systems, wildland fire, and pre-incident planning. Preparation for certification as a basic firefighter.
(3 sem hrs; 2 lec, 2 lab) (FPT 3063)#

FIRS 1433: Firefighter Certification VII
An in-depth study and practice of simulated emergency operations and hands-on live fire training exercises, incident command procedures, and combined operations using proper extinguishing methods. Emphasis on safety.
(4 sem hrs; 3 lec, 2 lab) (FPT 3073)
FIRT 1445: Hazardous Materials II
In-depth study of mitigation practices and techniques to effectively control hazardous material spills and leaks.
(4 sem hrs; 4 lec)

FIRT 2331: Firefighting Strategies and Tactics II
Prerequisite: FIRT 1331
Continuation of Firefighting Strategies and Tactics I. Emphasis on use of incident command in large scale command problems and other specialized fire problems.
(3 sem hrs; 3 lec)

FIRT 2333: Fire and Arson Investigation II
Prerequisite: FIRT 1303
Continuation of Fire and Arson Investigation I. Topics include reports, courtroom demeanor, and expert witnesses.
(3 sem hrs; 3 lec)

FIRT 2351: Company Fire Officer
A capstone course covering fire ground operations and supervisory practices. Includes performance evaluation of incident commander, safety officer, public information officer, and shift supervisor duties.
(3 sem hrs; 2 lec, 2 lab)

FIRT 2474: Hazardous Materials Technician
This is an in-depth class in the duties, responsibilities, and tactics of a hazardous materials technician. The student will study and use control techniques and equipment, address selection and use personal protective equipment (including decontamination equipment), and study and use monitoring devices that a haz-mat technician would be expected to use.
(4 sem hrs; 3 lec, 2 lab)

FIRT 2475: Aircraft Rescue and Firefighting
This class provides an in depth study of aircraft rescue and firefighting techniques including hands-on experience and live fire exercises.
(4 Sem hrs; 2 lec, 4 lab)

FIRT 2345: Hazardous Materials III
Continuation of Hazardous Materials II. Topics include radioactive materials and radiation; poisons and toxicology; cryogenics; oxidizers; corrosives; flammable solids; hazards of Class A fuels, plastics, and organic and inorganic peroxides and water reactivity; and polymerization and polymerizing substances.
(3 sem hrs; 3 lec)

FIRT 2388 and FIRT 2389: Internship
An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are develop and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience.
(3 sem hrs. 9 hrs work/week)

FREN 1411*: First-year French I
Grammar, conversation, composition, dictation, and reading.
(4 sem hrs; 5 lec, 1 lab) (FRNCH 3014)

FREN 1412*: First-year French II
Prerequisite: FREN 1411 or appropriate score on language placement test
Continuation of FREN 1411.
(4 sem hrs; 5 lec, 1 lab) (FRNCH 3024)

FREN 2311*: Second-year French I
Prerequisite: FREN 1412 or appropriate score on language placement test
Grammar review, conversation, composition, and study of selections from representative authors.
(3 sem hrs; 3 lec, 1 lab) (FRNCH 4013)

FREN 2312*: Second-year French II
Prerequisite: FREN 2311 or appropriate score on language placement test
Continuation of FREN 2311.
(3 sem hrs; 3 lec, 1 lab) (FRNCH 4023)

GEOGRAPHY
GEOG 1302*: Cultural Geography
Prerequisite: Test scores indicating college-level reading skills (TASP or state-approved alternative test) or a grade of C or higher in RDNG 0331
Elements of geography with emphasis on culture regions.
(3 sem hrs; 3 lec) (GEOG 3343)

GEOLOGY
GEOL 1103*: Physical Geology Laboratory
Prerequisite/Corequisite: GEOL 1303
Rocks, minerals, topographic maps, are mineral resources are studied.
(1 sem hr, 3 lab)

GEOL 1473: Introduction to Geographic Information Systems
A basic introduction to the concepts and techniques of GIS. In the laboratory, students will study methods of geographic data collection, Global Positioning Systems (GPS) entry, storage, retrieval, and output using ArcView software.
(4 sem hrs; 3 lec, 3 lab) (GEOL 3034)

GEOL 2279: Academic Cooperative in Geology
Prerequisite: Consent of instructor
Integrates on-campus study with practical hands-on work experience in Geology. The individual student will set specific goals and objectives in the study of earth's composition, structure, processes of matter and energy and associated phenomena.
(2 sem hrs; 1 lec, 5 hrs work/week)
GEOL 2389*: Academic Cooperative in Geology
Prerequisite: Consent of instructor
Integrates on-campus study with practical hands-on work experience in Geology. The individual student will set specific goals and objectives in the study of earth's composition, structure, processes of matter and energy and associated phenomena.
(3 sem hrs; 2 lec, 5 hrs work/week).

GEOL 1304*: Historical Geology
The history of the earth. Life history as revealed by fossils, continental drift and changes in earth features are studied.
(3 sem hrs; 3 lec) (GEOL 3224)#

GERMAN
GERM 1411*: First-year German I
Grammar, conversation, composition, dictation, and reading.
(4 sem hrs; 5 lec, 1 lab) (GERMN 3014)#

GERM 1412*: First-year German II
Prerequisite: GERM 1411 or appropriate score on language placement test
Continuation of GERM 1411.
(4 sem hrs; 5 lec, 1 lab) (GERMN 3024)#

GERM 2311*: Second-year German I
Prerequisite: GERM 1412 or appropriate score on language placement test
Grammar review, conversation, composition, and study of selections from representative authors.
(3 sem hrs; 3 lec, 1 lab) (GERMN 4013)#

GERM 2312*: Second-year German II
Prerequisite: GERM 2311 or appropriate score on language placement test
Continuation of GERM 2311.
(3 sem hrs; 3 lec, 1 lab) (GERMN 4023)#

GOVERNMENT
GOVT 2305*: Government of the United States
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331
The foundation, organization, growth, and development of the national government and its problems.
(3 sem hrs; 3 lec) (GOVT 4333)#

GOVT 2306*: Government of Texas
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331
(3 sem hrs; 3 lec) (GOVT 4343)#

GREEK
GREE 1411*: Greek I
(4 sem hrs; 4 lec) (GREEK 3414)#

GREE 1412*: Greek II
Prerequisite: GREE 1411 or equivalent
Continuation of GREE 1411 with readings in the Greek New Testament.
(4 sem hrs; 4 lec) (GREEK 3424)#

HISTORY
HIST 1301*, 1302*: History of the United States I and II
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331
A general survey of United States history from the European background to the present. The study includes political, economic, social and cultural aspects of life in this country and follows the development of the United States as a world power. HIST 1301 is not a prerequisite for 1302.
(3 sem hrs; 3 lec) (HIST 3373, 3383)#

HIST 2311: Western Civilization
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331
Chief political, social and intellectual developments of Western civilization from decline of the Roman empire to the present.
(3 sem hrs; 3 lec)

HIST 2322: Comparative World History Since 1500
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331
Survey of global history from a balanced point of view, beginning with the age of Western expansion in the 16th century and ending with our contemporary world.
(3 sem hrs; 3 lec)

HIST 2371: Contemporary World in Perspective
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331
A general survey of the major themes, events, and personalities that shape the contemporary world. The study includes political, social and cultural aspects of life in the global community.
(3 sem hrs; 3 lec)

HOME ECONOMICS
HECO 1322*: Principles of Nutrition
Essentials of an adequate diet for different age groups; nutritive values of foods. Emphasis is placed on psychological, social, and economic influence of food habits.
(3 sem hrs; 3 lec) (HOMEC 4313)#

HECO 1101*: Diet Therapy
Prerequisite: HECO 1322
Nutrition and diet therapy as applied to frequently encountered health problems.
(1 sem hr; 1 lec) (HOMEC 4401)#

HUMANITIES
HUMA 1171, 1172, 2171: Creative Mind Seminar
A seminar to accompany The Creative Mind Lecture Series. Discussion and readings pertaining to various issues within the humanities disciplines as determined by the lecture series yearly theme.
(1 sem hr; 1 lec) (HUM 3111, 4111)#

HUMA 1301*: Humanities - Ancient to Medieval
Comparative study of the intellectual and cultural achievements of Western man, including art, music, philosophy, and literature.
(3 sem hrs; 3 lec) (HUM 3113)#
HUMA 1302*: Humanities - Renaissance to Modern
Humanities through the arts with emphasis on art, music, drama, literature, sculpture, architecture and film.
(3 sem hrs; 3 lec) (HUM 3123)#

HUMA 1315*: Survey of Art and Music
An interdisciplinary course designed to integrate the visual and musical arts of Western civilization into the cultural and historical periods which created them.
(3 sem hrs; 3 lec) (HUM 3133)#

HUMA 1371: Mythology
A survey of mythological literature including Egyptian, Hindu, Buddhist, Greek, Oriental, American Indian, and Arthurian Legend with film commentary by mythology authority, Joseph Campbell.
(3 sem hrs; 3 lec) (HUM 3143)#

HUMA 2173: Honors Seminar I
Prerequisite: Enrollment limited to Honors program students
Examination of the practices and skills of leadership from classic readings in the humanities case studies, films, and group projects.
(1 sem hr; 1 lec) (HUM 4441)#

HUMA 2174: Honors Seminar II
Prerequisite: Enrollment limited to Honors students who have completed HUMA 2173
Continuation of Honors Seminar I with practice in leadership and team building. Based on additional humanities readings, films, and projects.
(1 sem hr; 1 lec) (HUM 4451)#

INDUSTRIAL MAINTENANCE TECHNOLOGY
ELMT 1301: Basic Programmable Logic Controllers
An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, application, troubleshooting of ladder logic, and interfacing of equipment.
(3 sem hrs; 2 lec, 2 lab)

ELMT 1305: Basic Fluid Power
Basic fluid power course including pneumatics, vacuum and hydraulics; symbols, theory, components, and basic electrical controls.
(3 sem hrs; 2 lec, 2 lab)

ELMT 1391: Special Topics in Electromechanical Technology/Technician
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.
(3 sem hrs; 2 lec, 2 lab)

ELMT 2337: Electronic Troubleshooting, Service and Repair
In-depth coverage of electronic systems, maintenance, troubleshooting, and repair. Topics include symptom identification, proper repair procedures, repair check-out, and preventive maintenance. Emphasis on safety and proper use test equipment.
(3 sem hrs; 2 lec, 2 lab)

ELMT 2341: Electromechanical Systems
Covers the application of electromechanical systems, including linear and rotational positioning systems, and their associated control systems, and the methods employed to operate them. Students will design and closed loop control solutions for a variety of positioning and power transformation problems. Emphasis is placed on programmable control devices and solid state systems.
(3 sem hrs; 2 lec, 2 lab)

ELMT 2380: Cooperative Education - Electromechanical Technology/Technician
Career related activities encountered in the student's area of specialization offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience.
(3 sem hrs; 1 lec, 20 hrs work/week)

ELMT 1311: Basic Electrical Theory
Basic theory and practice of electrical circuits to include concepts of resistance, inductance, capacitance, impedance, power factors, and Ohm's Law. Also includes schematics, wiring diagrams, and calculations as applied to alternating and direct current.
(3 sem hrs; 2 lec, 2 lab)

ENTC 1349: Reliability and Maintainability
A study of equipment reliability and maintainability to improve the efficiency of operations including utilizing the latest equipment and techniques to implement effective prevention and predictive maintenance programs. Fundamentals of computer maintenance management systems, maintenance scheduling, work orders, inventory control, report evaluations, and methods of analysis.
(3 sem hrs; 2 lec, 2 lab)

ENTC 2320: Thermography and Vibration Analysis
Thermography (infrared/thermal imaging) and vibration analysis used in non-destructive testing (NDT). Performed independently or collectively to determine equipment condition, identify equipment deficiencies, and determine corrective action.
(3 sem hrs; 2 lec, 2 lab)

HART 1341: Residential Air Conditioning
A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems.
(3 sem hrs; 2 lec, 2 lab)

HART 2342: Commercial Refrigeration
Theory of and practical application in the maintenance of commercial refrigeration; high, medium, and low temperature applications and ice machines.
(3 sem hrs; 2 lec, 2 lab)
HART 1303: Air Conditioning Control Principles
A basic study of electrical, pressure, and temperature controls including motor starting devices, operating relays, and troubleshooting safety controls and devices. 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.
(3 sem hrs; 2 lec, 2 lab)

HART 1345: Gas and Electric Heating
A study of the procedures and principles used in servicing heating systems including gas-fired and electric furnaces.
(3 sem hrs; 2 lec, 2 lab)

HART 1307: Refrigeration Principles
An introduction to the refrigeration cycle, basic thermodynamics, heat transfer, temperature/pressure relationship, safety, refrigeration containment, and refrigeration components.
(3 sem hrs; 2 lec, 2 lab)

HART 2345: Air Conditioning Systems Design
A 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.
(3 sem hrs; 2 lec, 2 lab)

IEIR 1306: Electric Motors
Fundamentals of single phase and three phase alternating current motors and direct current motors including operating principles, characteristics, application, selection, installation, maintenance, and troubleshooting.
(3 sem hrs; 2 lec, 2 lab)

IEIR 1310: Motor Controls
Principles and fundamentals of electrical controls and control components including magnetic motor starters, overload protection, relay logic, troubleshooting techniques, schematics, and diagrams.
(3 sem hrs; 2 lec, 2 lab)

IEIR 1312: Distribution Systems
(3 sem hrs; 2 lec, 2 lab)

IEIR 1343: Industrial Equipment Maintenance
Maintenance and repair of power transmission systems involving gear, V-belt, and chain drives with emphasis on both plain and anti-friction bearings. Introduces theory of various types of pumps and compressors. Laboratory activities include maintenance, repair, lubrication, and overhaul procedures used on common process pumps, gear boxes and compressors.
(3 sem hrs; 2 lec, 2 lab)

INMT 1305: Introduction to Industrial Maintenance
Basic mechanical skills and repair techniques common to most fields of industrial maintenance. Topics include precision measuring and basic applied math, blueprint reading, codes and general safety rules common in industry, including lock-out/tag-out.
(3 sem hrs; 2 lec, 2 lab)

INMT 2301: Machinery Installation
Students utilize skills acquired in previous studies. Machinery foundation, location and layout for machine footprint, installation, and alignment activities are practiced and tested. Emphasis is on the various methods of shaft alignment including laser shaft alignment and shaft straightening.
(3 sem hrs; 2 lec, 2 lab)

INMT 2303: Pumps, Compressors & Mechanical Drives
A study of the theory and operations of various types of pumps and compressors. Topics include mechanical power transmission systems including gears, valves, v-belts, meters, fluids, and chain drives. Standards relating to flanges, hoses, and piping are also reviewed.
(3 sem hrs; 2 lec, 2 lab)

INMT 2345: Industrial Troubleshooting
An advanced study of the techniques used in troubleshooting various types of industrial equipment to include mechanical, electrical, hydraulic, and pneumatic systems and their control devices. Emphasis will be placed on the use of schematics and diagrams in conjunction with proper troubleshooting procedures.
(3 sem hrs; 2 lec, 2 lab)

SEST 1341: Boilers - Operations, Installation and Maintenance
Safe installation, operation, and maintenance procedures for boilers including total boiler analysis for maximum performance and efficiency of each system.
(3 sem hrs; 2 lec, 2 lab)

INSTRUMENT AND CONTROL TECHNOLOGY

CSIR 1355: Industry Certification
Preparation for the certifications required by industry. In-depth study of FCC Commercial License exam, test questions and subjects will be reviewed.
(3 sem hrs; 2 lec, 2 lab) (TCC 4133)#

EECT 1380: Cooperative Education - Electrical, Electronic and Communications Engineering Technology/Technician

Prerequisite: Consent of instructor
Career related activities encountered in the student’s area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience.
(3 sem hrs; 1 lec, 20 hrs work/week) (TCC 5002)#

EECT 1391: Special Topics in Electrical, Electronic and Communications Engineering Technology/Technician

Prerequisite: Consent of instructor
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.
(3 sem hrs; 2 lec, 2 lab) (TCC 4163)# (TCC 5002)#
ECT 2433: Telephone Systems
Prequisites: CETT 1329, LOTT 1301
A study of installation and maintenance systems including telephone set, public switched networks, local exchanges, networks, two and four wire systems, tip and ringing requirements, and digital transmission techniques.
(4 sem hrs; 3 lec, 2 lab) (TCC 4023)#

ECT 2435: Telecommunications
Prequisite: EECT 2439
A study of modern telecommunications systems incorporating microwave, satellite, optical, and wire/cable-based communications systems, advanced FM transmitters, receivers, repeaters, trunking, paging and cellular systems. Instruction in installation, testing, and maintenance of fixed and mobile equipment communications systems components and various antenna systems.
(4 sem hrs; 3 lec, 3 lab) (TCC 4123)#

ECT 2439: Communications Circuits
A study of communication systems with emphasis on amplitude modulation, frequency modulation, phase modulation, and digital pulse modulation. Discussion of several types of modulators, demodulators, receivers, transmitters, and transceivers.
(4 sem hrs; 3 lec, 2 lab) (TCC 4013)#

ENTC 1301: Robotics I
An introduction to Robots/Automation. Topics include history, terminology, classification of robots, basic components, control systems, AC and hydraulic servomechanisms, programming, sensors, types of drive, end-of-arm tooling, end effectors, safety and design procedures.
(3 sem hrs; 2 lec, 2 lab)

ENTC 2301: Robotics II
The study of industrial robots, programming languages, and software integrated to develop work cells and complete robotic systems. Topics include automation basics, interfacing, safety, and design procedures.
(3 sem hrs; 2 lec, 2 lab)

INTC 1301: Principles of Industrial Measurements
Prequisite: INTC 1312 or consent of instructor
A study of the principles and devices for the measurement of control variables such as temperature, pressure, flow, level, weight flow level, and basic control functions.
(3 sem hrs; 2 lec, 2 lab) (ICT 4403)#

INTC 1305: Introduction to Electronic Instrumentation
Prequisite: CETT 1303
A survey of the instrumentation field and the professional requirements of the instrumentation technician, including an introduction to computer and calculator applications involved in basic electronic circuit analysis. Basic operation and application of electronic circuit analysis. Basic operation and application of electronic process equipment, temperature measuring systems and devices explained. Various electronic calibration devices are used in lab environment.
(3 sem hrs; 2 lec, 2 lab) (ICT 4103)#

INTC 1309: Critique of Instrument and Control
An overview of instruments and control stressing preparation for industry employment testing and the National Institute of Engineering Technologist Certification.
(3 sem hrs; 2 lec, 2 lab) (ICT 4303)#

INTC 1312: Introduction to Instrumentation and Safety Technology
An overview of industries employing instrumentation technicians. A study of hazardous industrial locations and safe work practices, instruments, transmitters, and devices for measurement of temperature, pressure flow, level and transmission or signal for measurement.
(3 sem hrs; 3 lec) (ICT 3003)#

INTC 1315: Final Control Elements
A study of the various designs of control valves including disassembly, assembly, calibration, troubleshooting, and required documentation. Instruction in basic techniques and calculations for proper liquid and gas valve sizing.
(3 sem hrs; 2 lec, 2 lab) (ICT 4003)#

INTC 1348: Analytical Instrumentation
Prequisite: INTC 1312 or consent of instructor
A study of analytical instruments emphasizing their utilization in continuous process applications including gas chromatography pH, conductivity, and spectrophotometry instruments.
(3 sem hrs; 2 lec, 2 lab) (ICT 3403)#

INTC 1355: Unit Operations
An in-depth study of industrial processes including fluid flow and material transport, distillation, extraction, and automatic control requirements of these processes. Instruction in control system design and control loop adjustments and analyses.
(3 sem hrs; 2 lec, 2 lab) (ICT 3203)#

INTC 1356: Instrumentation Calibration
A study of techniques for calibrating electronic and pneumatic transmitters, controllers, recorders, valves, valve positioners including tear down, assembly, alignment, and calibration of equipment. Students are introduced to control loops utilizing various equipment and auxiliary devices in a process. The use of calibration equipment is stressed.
(3 sem hrs; 2 lec, 2 lab) (ICT 3103)#

INTC 1358: Flow and Measurement Calibration
Prequisite: INTC 1312 or consent of instructor
A study of the practical methods of flow measurements and flow integration. Emphasis on orifice selection and calculation methods in accordance with the American Gas Association (AGA) and American Petroleum Institute (API) standards.
(3 sem hrs; 2 lec, 2 lab) (ICT 3303)#

INTC 1380: Cooperative Education - Instrumentation/Technician
Career related activities encountered in the student’s area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience.
(3 sem hrs; 1 lec, 20 hrs work/week)

#Texas Common Course Number
#Previous prefix and number
INTC 2336: Distributed Control and Programmable Logic
Prerequisite: INTC 1305 or consent of instructor
An overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicators. Functions of digital systems in a process control environments.
(3 sem hrs; 2 lec, 2 lab) (ICT 4203)#

METL 1313: Introduction to Corrosion
An introduction to internal, external, and atmospheric corrosion including terminology, causes of common corrosion problems in industry and general remedies such as cathodic protection, protective coatings, material selection, and chemical treatments.
(3 sem hrs; 3 lec)

METL 2301: Internal Corrosion Control
An in-depth study of internal corrosion found in oil and gas wells, pipelines, refineries, process plants, and other industrial installations including the common forms of non-destructive testing, internal corrosion monitoring techniques, and chemical corrosion treatment methods.
(3 sem hrs; 2 lec, 2 lab)

METL 2305: Atmospheric Corrosion Control
Prerequisite: METL 2301 or consent of instructor
An in-depth study of atmospheric corrosion control by coatings, which include surface preparation, coating selection, coating application, inspection, and failure analysis.
(3 sem hrs; 2 lec, 2 lab)

METL 2341: Cathodic Protection
Prerequisite: METL 2301 or consent of instructor
An in-depth study of corrosion control of buried or submerged metallic structures utilizing both impressed and galvanic cathodic protection systems. Emphasis on regulatory compliance for pipelines and underground storage tanks.
(3 sem hrs; 2 lec, 2 lab)

PTAC 2420: Process Technology II - Systems
Study of the interrelation of process equipment and process systems including related scientific principles. The student will arrange process equipment into basic systems; describe the purpose and function of specific process systems; explain how factors affecting process systems are controlled under normal conditions; and recognize abnormal process conditions.
(4 sem hrs; 3 lec, 2 lab)

PTAC 2438: Process Technology III - Operations
Prerequisite: PTAC 2420
This course combines systems into operational process with emphasis on operations under various conditions. Topic include typical duties of an operator. The student will combine systems into operating processes; describe a process technician's role during plant operations; write operating procedures; and demonstrate application of operating procedures.
(4 sem hrs; 3 lec, 2 lab)

RBTC 1345: Robot Interfacing
A study of the basic principles of robot controllers, controller input/output, memory, and interfacing with computer integrated manufacturing.
(3 sem hrs; 2 lec, 2 lab)

RBTC 2339: Robot Programming and Diagnostics
A course in the programming of industrial robots, the development of programming techniques, and the diagnosis of faults in the systems.
(3 sem hrs; 2 lec, 2 lab)

RBTC 2345: Robot Application, Setup, and Testing
A capstone course that provides the student with laboratory experience in the installation, set-up, and testing of robotic cells. Topics include maintenance.
(3 sem hrs; 2 lec, 2 lab)

RBTC 2447: Computer Integrated Manufacturing
The principles of computer integrated manufacturing, including case studies and implementation of process control techniques, CAD/CAM, operations, software, and networking for CIM systems.
(4 sem hrs; 3 lec, 2 lab)

INTERIOR DESIGN
INDS 1301: Basic Elements of Design
A study of basic design concepts with projects in shape, line, value, texture, pattern, spatial illusion, and form.
(3 sem hrs; 2 lec, 2 lab) (INTD 3123)#

INDS 1315: Materials, Methods and Estimating
A study of materials, methods of construction and installation, and estimating for interior design applications.
(3 sem hrs; 2 lec, 2 lab) (INTD 3203)#

INDS 1319: Technical Drawing for Interior Designers
An introduction to reading and preparing technical construction drawings for interior design, including plans, elevations, details, schedules, dimensions and lettering.
(3 sem hrs; 2 lec, 2 lab) (INTD 3113)#

INDS 1341: Color Theory and Application
A study of color theory and its applications to interior design.
(3 sem hrs; 2 lec, 2 lab)

INDS 1345: Commercial Design I
Prerequisite: INDS 1349, INDS 1315, INDS 2307
Corequisite: INDS 2307
A study of design principles applied to furniture lay-out and space planning for commercial interiors.
(3 sem hrs; 2 lec, 4 lab) (INTD 4413)#

INDS 1349: Fundamentals of Space Planning
Prerequisites: INDS 1301, INDS 1319
The study of residential and light commercial spaces, including programming, codes, standards, space planning, drawings and presentations.
(3 sem hrs; 2 lec, 2 lab)

INDS 1351: History of Interiors I
Historical survey of antiquities and European styles and periods of architecture, interiors and furnishings. With consideration of Egypt, Greece, Italy, Spain, and France.
(3 sem hrs; 3 lec) (INTD 4323)#

INDS 1352: History of Interiors II
Historical survey of English, American, Asian, and twentieth century styles and periods of architecture, interiors, and furnishings.
(3 sem hrs; 3 lec) (INTD 4323)#
INDS 2364: Practicum - Interior Design  
*Prerequisite: Consent of instructor*  
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study. The guided external experiences may be for pay or no pay.  
(3 sem hrs; 30 hrs work/week) (INTD 4533, INTD 4443)#

INDS 1391: Special Topics in Interior Design: Bath Design  
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.  
(3 sem hrs; 2 lec, 2 lab)

INDS 1491: Special Topics in Interior Design: Kitchen Design  
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.  
(4 sem hrs; 2 lec, 4 lab)

**JOURNALISM**  
(See Mass Communication)

**LATIN**

LATI 1411*: First-year Latin I  
Grammar, reading and translation, pronunciation, simple conversations, dictation.  
(4 sem hrs; 5 lec) (LAT 3014)#

LATI 1412*: First-year Latin II  
*Prerequisite: LATI 1411, appropriate score on language placement test or consent of instructor*  
Continuation of LATI 1411.  
(4 sem hrs; 5 lec) (LAT 3024)#

LATI 2311*: Second-year Latin I  
*Prerequisite: LATI 1412, appropriate score on language placement test or consent of instructor*  
Grammar review, continuation of vocabulary and grammar development, limited translation of various Latin authors.  
(3 sem hrs; 3 lec) (LAT 4013)#

LATI 2312*: Second-year Latin II  
*Prerequisite: LATI 2311, appropriate score on language placement test or consent of instructor*  
Continuation of LATI 2311, emphasizing a survey of various Latin authors.  
(3 sem hrs; 3 lec) (LAT 4023)#

*Texas Common Course Number  
#Previous prefix and number
MANAGEMENT

BMGT 1171: Customer Service
Practical information and techniques to create excellent customer service. Emphasis on the many facets of customer service and how to address each facet successfully.
(1 sem hr; 1 lec) (MGT 4311)#

BMGT 1301: Supervision
Prerequisite: HRPO 1311 or consent of instructor
A study of the role of the supervisor. Managerial functions as applied to leadership, counseling, motivation, and human skills are examined.
(3 sem hrs; 3 lec) (MGT 3363)#

BMGT 1305: Communications in Management
Basic theory and processes of communication skills necessary for the management of an organization’s workforce. Student will learn how to produce a job resume, job application, letters, and prepare for job interviews.
(3 sem hrs; 3 lec) (MGT 4353)#

BMGT 1307: High Performance Work Teams
Basic principles of building and sustaining teams in organizations including team dynamics and process improvement.
(3 sem. hrs; 3 lec.)

BMGT 1373: Professional Image Development
Study of how image affects success in the business world. Emphasis on visual and behavioral images created by our clothing choices and our understanding and use of appropriate business and social behavior.
(3 sem hrs; 3 lec) (MGT 3383)#

BMGT 1382, 1383: Cooperative Education - Business Administration and Management, General
Career related activities encountered in the student’s area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience.
(3 sem hrs each; 1 lec each, 20 hrs work/week) (MGT 5213, 5223)#

BMGT 2303: Problem Solving and Decision Making
Decision making and problem solving processes in organizations, utilizing logical and creative problem solving techniques. Application of theory is provided by experiential activities such as small group discussions, case studies, and the use of other managerial decision aids.
(3 sem hrs; 3 lec)

BMGT 2305: Advanced Communications in Management
Prerequisite: BMGT 1305
Prerequisite/Corequisite: ENGL 1301
Advanced principles of oral and written communications for managers.
(3 sem hrs; 3 lec) (MGT 4373)#

BMGT 2331: Principles of Quality Management
Quality of productivity in organizations. Includes planning for quality throughout the organization, analysis of costs of quality, and employee empowerment. Students will participate in various group designs and interactively learn quality tools with an organizational focus on continuous quality improvement.
(3 sem hrs; 3 lec) (MGT 4383)#

BMGT 2341: Strategic Management
Prerequisite: BUSI 2371 or BMGT 1301
Strategic management process involving analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment.
(3 sem hrs; 3 lec.)

BMGT 2377: Convenience Store Operations
Prerequisites: BMGT 1171, HRPO 1311, BMGT 1301, BMGT 1305, BMGT 1373
An overview of the many components of convenience store operation, and their relationship to other related types of management and retailing.
(3 sem hrs; 3 lec.)

BUSG 1315: Small Business Operations
A course in the unique aspects of managing a small business. Topics address management functions including how managers plan, exercise leadership, organize and control operations.
(3 sem hrs; 3 lec) (MGT 4343)#

BUSG 2309: Small Business Management - Entrepreneurship
A course in how to start and operate a small business. Topics include facts about a small business, essential management skills, how to prepare a business plan, financial needs, marketing strategies, and legal issues.
(3 sem hrs; 3 lec) (MGT 4343)#

BUSI 2371: Principles of Management
Management principles and techniques for all fields of business, including business objectives, policies, functions, leadership, organization, structure, and control.
(3 sem hrs; 3 lec) (BA 4183)#

HRPO 1311: Human Relations
Practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment.
(3 sem hrs; 3 lec) (MGT 3313)#

HRPO 2301: Human Resources Management
Behavioral and legal approaches to the management of human resources in organizations.
(3 sem hrs; 3 lec) (MGT 4113)#

*Texas Common Course Number
#Previous prefix and number
**COMM 1307**: Introduction to Mass Communication
Survey of communication field; history, purpose, methods of operation; interrelations among media forms, individual, and society.
(3 sem hrs; 3 lec) (MCOM 3103)

**COMM 1318**: Photography I
Introduction to the basics of photography. Includes camera operation, techniques, knowledge of chemistry, and presentation skills. Emphasis on design, history, and contemporary trends as a means of developing an understanding of photographic aesthetics.
(3 sem hrs; 2 lec, 3 lab)
NOTE: Students completing COMM 1318 cannot earn credit for ARTS 2356.

**COMM 1335**: Survey of Electronic Media
Broadcast/cable station organization; functions of various departments; history and development of industry, FCC, networks, ratings, government regulation, self-regulation, programming, and public-interest concept. Study of new technology.
(3 sem hrs; 3 lec) (MCOM 4203)

**COMM 1336**: Introduction to Radio-TV Production
Operation of studio and control room equipment for radio and television production; Experience on production crew for programs and commercials. Understanding of visual elements of the electronic media.
(3 sem hrs; 2 lec, 3 lab) (RADTV 3103)

**COMM 1337**: Television Production
Prerequisite: COMM 1336
Production techniques, theory of lighting, non-linear/digital and videotape editing, and field camera operation.
(3 sem hrs; 2 lec, 4 lab) (RADTV 3203)

**COMM 2220**: Television Workshop
Prerequisite: Consent of instructor
Laboratory experience in television production by producing program material for use on the college television station and/or cable channel.
(2 sem hrs; 4 lab) (MCOM 4502)

**COMM 2303**: Radio Production I
Prerequisite: COMM 1336
Participation in on-air board shift on KACV-FM; production techniques, formats, styles and remote equipment operation.
(3 sem hrs; 2 lec, 2 lab) (RADTV 3403)

**COMM 2305**: Editing and Design
Copy editing and headline writing according to newspaper style and standards; press law and ethics; laboratory practice in page design, photo editing and typography.
(3 sem hrs; 3 lec, 2 lab) (COMM 2209 and 2210; JOURN 4102 and 4202)

**COMM 2311**: News Reporting and Writing I
Gathering and writing news with special attention to leads, organization, and types of ordinary news stories; work on campus newspaper.
(3 sem hrs; 3 lec, 2 lab) (JOURN 3103)

**COMM 2315**: News Reporting and Writing II
Prerequisite: COMM 2311
Practice reporting by gathering information for specialized news stories; interpretive stories; examine ethics and legal implications in reporting; work on campus newspaper.
(3 sem hrs; 3 lec, 2 lab) (JOURN 3203)

**COMM 2324**: Electronic Media Workshop
Work with college radio station, PBS television station, cable channel or commercial media outlet. Individual research or project with faculty supervision.
(3 sem hrs; 6 lab) (MCOM 4463)

**COMM 2326**: Media Internship
Prerequisite: Consent of instructor
Internship arranged with a media outlet; student will work at radio or television station, magazine, newspaper or advertising agency with faculty supervision.
(3 sem hrs; 6 hrs work/week) (MCOM 4602)

**COMM 2327**: Introduction to Advertising
Theories, principles, and functions of advertising; role in marketing strategy; specific requirements of all media forms; campaigns and role of advertising agency.
(3 sem hrs; 3 lec) (MCOM 3403)

**COMM 2331**: Announcing for Radio-Television
Techniques of radio-television announcer; voice development, articulation/diction, and phonetics; interviewing techniques and experience in announcing all types of material.
(3 sem hrs; 3 lec) (MCOM 3303)

**COMM 2332**: Broadcast News
Gather, edit, present, and analyze news for broadcast stations; to examine news department organization and philosophy. Presentation of regularly scheduled newscast on KACV-FM.
(3 sem hrs; 3 lec, 2 lab) (MCOM 4503)

**COMM 2339**: Writing for Electronic Media
Writing techniques for radio and television commercials, public service announcements, promos, and other broadcast and film materials. Emphasis on the format and style of each type of writing.
(3 sem hrs; 2 lec, 2 lab)

**COMM 2371**: Topics in Journalism
Special topics in the field of journalism which may include computer assisted research, specialized writing and/or reporting and contemporary trends.
(3 sem hrs; 3 lec, 1 lab)
MATH 0301: Basic Mathematics
Prerequisite: Placement by a THEA score of 179 or below, or an equivalent score on an approved test.
Operations with real numbers; exponents and polynomials; operations with algebraic expressions; linear equations in one and two variables; basic geometry; introductory graphing and systems of linear equations; factoring polynomials; systems of linear equations in two variables; real world models; applications.
(3 sem hrs; 3 lec, 1 lab) (MATH 0033)  
(This is a developmental course. It does not meet elective or graduation requirements.)

MATH 0302: Beginning Algebra
Prerequisite: A THEA score of 180, or an equivalent score on a state-approved test, or a grade of C or higher in MATH 0301
Operations with real numbers; exponents and polynomials; operations with algebraic expressions; linear equations in one and two variables; basic geometry; introductory graphing and systems of linear equations; factoring polynomials; systems of linear equations in two variables; real world models; applications.
(3 sem hrs; 3 lec, 1 lab) (MATH 0303)  

MATH 0303: Intermediate Algebra
Prerequisite: A THEA score of 230, or an equivalent score on a state-approved test, or a grade of C or higher in MATH 0302, or consent of department chair
Linear functions; systems of linear equations in two and three variables; polynomial and quadratic functions and their graphs; quadratic equations; factoring over real numbers; solving polynomial equations; rational expressions and functions; radical expressions and functions; rational exponents; introduction to complex numbers; real world models; applications.
(3 sem hrs; 3 lec, 1 lab) (MATH 0313)  
(This is a developmental course. It does not meet elective or graduation requirements.)

MATH 1301: College Algebra
Prerequisite: A THEA score of 270, or an equivalent score on a state-approved test, or a grade of C or higher in MATH 0303, or consent of department chair
Study of quadratics; polynomial, rational, logarithmic, and exponential functions; systems of equations; progressions, sequences and series; matrices and determinants.
(3 sem hrs; 3 lec) (MATH 1313)

MATH 1314*: College Algebra
Prerequisite: A THEA score of 270, or an equivalent score on a state-approved test, or a grade of C or higher in MATH 1301, or consent of department chair
Study of limits and continuity; derivatives and integration as applied to business and the social sciences.
(3 sem hrs; 3 lec) (MATH 3633)  

MATH 1333*: Contemporary Mathematics
Prerequisite: A THEA score of 230, or an equivalent score on a state-approved test, or a grade of C or higher in MATH 0302, or consent of department chair
Logic; sets and counting; metric system; probability; statistics; geometry; math of finance; and exponential and logarithmic functions.
(3 sem hrs; 3 lec) (MATH 3123. MATH 1332)  

MATH 1342*: Statistics
Prerequisite: A grade of C or higher in MATH 1314, Math 2413, or consent of department chair
Methods of data analysis; statistical concepts and models; estimation theory; tests of significance; analysis of variance, regression and correlation.
(3 sem hrs; 3 lec, 1 lab) (MATH 4703)

MATH 1348*: Analytic Geometry - Fall Only
Prerequisite: A grade of C or higher in MATH 1316 or consent of department chair
Vectors, curves and their equations, transformation of coordinates, polar coordinates and parametric equations.
(3 sem hrs; 3 lec) (MATH 3703)

MATH 1350*: Foundations of Mathematics I
Prerequisite: A grade of C or higher in MATH 1350 or consent of department chair
For education majors.
Elementary 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.
(3 sem hrs; 3 lec)

MATH 1351*: Foundations of Mathematics II
Prerequisite: A grade of C or higher in MATH 1350
For education majors.
Elementary 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.
(3 sem hrs; 3 lec)

MATH 2305: Discrete Mathematics
Prerequisite: A grade of C or higher in Math 2413
Formal structures for describing data, algorithms and computing devices, theory and applications of sets, graphs and algebraic structures.
(3 sem hrs; 3 lec) (MATH 4833)  

MATH 2318*: Linear Algebra - Fall Only
Prerequisite: A grade of C or higher in MATH 2414
Finite-dimensional vector spaces, linear transformations and matrices, eigenvectors, quadratic forms, complex number spaces.
(3 sem hrs; 3 lec, 1 lab) (MATH 4743)
MATH 2320*: Differential Equations - Spring Only
Prerequisite/Corequisite: A grade of C or higher in MATH 2415
Linear ordinary differential equations, series solutions, Laplace transforms, applications to science and engineering.
(3 sem hrs; 3 lec, 1 lab) (MATH 4793)#

MATH 2412: Precalculus
Prerequisite: A grade of A in MATH 0303 or consent of the Department Chair.
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.
(4 sem hrs; 4 lec)

MATH 2413*: Calculus I
Prerequisite: A grade of C or higher in MATH 2412, MATH 1314 and MATH 1316, or MATH 1348 or consent of the Department Chair.
Limits and continuity; derivatives of algebraic and trigonometric functions; applications of derivatives; indefinite and definite integrals; approximate integration; areas, volumes and arc length by integration.
(4 sem hrs; 3 lec, 2 lab) (MATH 3714)#

MATH 2414*: Calculus II
Prerequisite: A grade of C or higher in MATH 2413
Differentiation and integration of transcendental functions; methods of integration; improper integrals; polar and parametric coordinates; infinite sequences; infinite series.
(4 sem hrs; 3 lec, 2 lab) (MATH 4724)#

MATH 2415*: Calculus III
Prerequisite: A grade of C or higher in MATH 2414
Vectors; lines and planes in space; functions of several variables; partial derivatives; multiple integrals; calculus of vector fields; line integrals; Green’s theorem; Stokes’ theorem.
(4 sem hrs; 3 lec, 2 lab) (MATH 4734)#

COSC 1317*: Computer Programming for Engineers and Scientists - Spring only
Prerequisite/Corequisite: A grade of C or higher in MATH 2413
Current engineering programming language (C, C++ or other); problems in engineering applications and numerical analysis.
(3 sem hrs; 3 lec, 3 lab) (MATH 4823)#

MEDICAL DATA SPECIALIST

SPNL 1201: Health Care Spanish
Development of practical Spanish communication skills for the health care employee including medical terminology, greetings, common expressions, commands, and phrases normally used within a hospital or physician’s office.
(2 sem hrs; 2 lec) (AH 3001)#

HPRS 1205: Medical Law/Ethics for Health Professionals
Introduction to the relationship between legal aspects and ethics associated with the health care field. Emphasis on the ethical and legal responsibilities of health care professionals.
(2 sem hrs; 2 lec) (AH 3002)#

MDCA 1220: Administrative Procedures I
Prerequisite: Previous completion of or concurrent enrollment SPCH 1318
A course in medical office procedures, including appointment scheduling, medical records creation and maintenance, phone communications, transcriptions, coding billing, collecting, third party reimbursement, credit arrangements, and use of the computer in the medical office.
(2 sem hrs; 2 lec) (MDS 3103)#

MDCA 1221: Administrative Procedures II
A course in medical office procedures, including appointment scheduling, medical records creation and maintenance, phone communications, transcriptions, coding billing, collecting, third party reimbursement, credit arrangements, and use of computer in the medical office.
(2 sem hrs; 2 lec) (MDS 3152)#

MDCA 1242: Medical Insurance I
Corequisite: POFM 1313
Emphasizes accurate ICD-9 and CPT Coding of office procedures for payment/reimbursement by patient or third party. Additional topics may include managed care or medical economics.
(2 sem hrs; 1 lec, 2 lab) (MDS 3132)#

MDCA 1243: Medical Insurance II
Emphasizes accurate ICD-9 and CPT Coding of office procedures for payment/reimbursement by patient or third party. Additional topics may include managed care or medical economics.
(2 sem hrs; 1 lec, 2 lab) (MDS 3122)#

POFM 1264: Practicum
Prerequisites: Completion of all certificate requirements except for MRMT 2333
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
(2 hrs; 15 hrs work/week) (MDS 4012)#

MDCA 1302: Human Disease/Pathophysiology
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.
(3 sem hrs; 3 lec) (MDS 3523)#

MRMT 1307: Medical Transcription Fundamentals
Prerequisites: POFM 1313, MDCA 1302, POF 2301
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.
(3 sem hrs; 6 lab) (MDS 3422)#

POFM 1313: Medical Terminology I
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331.
Instruction in the practical application of a medical vocabulary. Topics include structure; recognition; analysis; definitions; spelling; pronunciation; and combination of medical terms from prefixes, suffixes, roots, and combining forms.
(3 sem hrs; 3 lec) (AH 3013)#
POFM 1333: Pharmacology for Office Personnel
A study of the general classifications of drugs and their actions and side effects as they relate to anatomy and physiology. Emphasis on drug interactions with each body system, pharmaceutical medical terminology, and generic and trade names of drugs.
(3 sem hrs; 3 lec) (AH 4023) #

POFM 2323: Medical Terminology II
Prerequisite: POFM 1313
A continuation of Medical Terminology I including structure; recognition; analysis; definitions; spelling; pronunciation; and combination of medical terms from prefixes, suffixes, roots and combining forms. Emphasis on various medical specialty fields.
(3 sem hrs; 3 lec) (AH 4023) #

MEDICAL LABORATORY TECHNOLOGY
PLAB 1163: Clinical - Phlebotomy/Phlebotomist
Corequisites: PLAB 1223, MLAB 1211
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.
(1 sem hr; 4 clinic)

MLAB 1201: Introduction to Clinical Laboratory Science
Prerequisite: Admission into the MLAB Program
An introduction to clinical laboratory science, including quality control, laboratory math, safety, basic laboratory equipment, laboratory settings, accreditation and certification.
(2 sem hrs; 2 lec)

MLAB 1211: Urinalysis and Body Fluids
Prerequisites: MLAB 1201, MLAB 1227, MLAB 1415
An introduction to urinalysis and body fluid analysis, including the anatomy and physiology of the kidney, and physical, chemical and microscopic examination of urine, cerebrospinal fluid, and other body fluids.
(2 sem hrs; 1 lec, 4 lab)

PLAB 1223: Phlebotomy
Corequisites: PLAB 1163, MLAB 1211
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.
(2 sem hrs; 2 lec, 1 lab)

MLAB 1227: Coagulation
Corequisites: MLAB 1201, MLAB 1415
A course in coagulation theory, procedures, and practical applications. Includes laboratory exercises which rely on commonly performed manual and semi-automated methods.
(2 sem hrs; 2 lec, 1 lab)

MLAB 1235: Immunology/Serology
Corequisite: MLAB 1211
An introduction to the theory and application of basic immunology, including the immune response, principles of antigen-antibody reactions, and the principles of serological procedures.
(2 sem hrs; 2 lec, 1 lab)

MLAB 1331: Parasitology/Mycology
Corequisites: MLAB 2267, MLAB 2271
A study of the taxonomy, morphology, and pathogenesis of human parasites and fungi, including the practical application of laboratory procedures.
(3 sem hrs; 2 lec, 2 lab)

MLAB 1409: Anatomy and Physiology for Medical Assistants
Corequisites: MLAB 1201, MLAB 1415
Emphasis on normal human anatomy and physiology of cells, tissues, organs, and systems with overview of common pathophysiology.
(4 sem hrs; 4 lec)

MLAB 1415: Hematology
Corequisites: MLAB 1201, MLAB 1227
Introduction to the theory and practical application of routine and special hematology procedures, both manual and automated; red blood cells and white blood cells maturation sequences, and normal and abnormal morphology and associated diseases.
(4 sem hrs; 3 lec, 4 lab)

MLAB 2266: Practicum I
Prerequisite: MLAB 2534
Practical general training and experiences in the workplace. The college and the employer develop and document an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study.
(2 sem hrs; 16 clinic)

MLAB 2267: Practicum II
Prerequisites: MLAB 2266, MLAB 2501
Practical general training and experiences in the workplace. The college and the employer develop and document an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study.
(2 sem hrs; 16 clinic)

MLAB 2271: Seminar I
Corequisites: MLAB 1331, MLAB 2267
Computer based course focusing on the integration of professional knowledge and skills in preparation for professional certification, employment and lifelong learning.
(2 sem hrs; 1 lec, 3 lab)

MLAB 2431: Immunohematology
Corequisite: MLAB 1235
A study of blood antigens and antibodies. Performance of routine blood banking procedures, including blood group and Rh typing, antibody screens, antibody identification, cross matching, elution, and absorption techniques.
(4 sem hrs; 3 lec, 4 lab)

#Previous prefix and number
MLAB 2472: Seminar II
Prerequisites: MLAB 1331, MLAB 2267, MLAB 2271
A capstone course focusing on research presentations on advanced, current topics in laboratory medicine; discussions on professionalism, medico-legal and bio-ethical issues, cultural diversity, and sensitivity toward patients with disabilities; and demonstration of mastery of knowledge and competency requirements for the entry level Medical Laboratory Technician.
(4 sem hrs; 4 lec)

MLAB 2501: Clinical - Chemistry
Corequisite: MLAB 2266
An introduction to the principles and procedures of various tests performed in Clinical Chemistry. Presents the physiological basis for the test, the principle and procedure for the test, and the clinical significance of the test results, including quality control and normal values. Also includes basic chemical laboratory technique, chemical laboratory safety, electrolytes and acid base balance, proteins, carbohydrates, lipids, enzymes, metabolites, endocrine function, and toxicology.
(5 sem hrs; 4 lec, 3 lab)

MLAB 2534: Clinical - Microbiology
Prerequisites: MLAB 1163, MLAB 1211, MLAB 1223, MLAB 1235, MLAB 2431
Instruction in the theory, practical application, and pathogenesis of clinical microbiology, including collection, setup, identification, susceptibility testing, and reporting procedures.
(5 sem hrs; 4 lec, 4 lab)

MORTUARY SCIENCE
MRTS 1211: History of Mortuary Science
The principles of funeral service and its professional history from the time of early Egyptians, c. 4000 BC to the present form, the introduction to a career in funeral service.
(2 sem hrs; 2 lec) (MS 1211)#

MRTS 1301: Contemporary Funeral Service Practices
Corequisites: MRTS 1211, MRTS 1310, MRTS 1342, or consent of program coordinator
This course surveys the major principles related to customs, religions, human relations, and the social behavior required of practicing morticians. The requirements for burial, cremation, anatomical donation, and burial at sea as modes of disposition are presented. Emphasis is placed on funeral counseling.
(3 sem hrs; 3 lec) (MS 1311)#

MRTS 1310: Funeral Service Clinical Orientation
Corequisites: MRTS 1211, MRTS 1301, MRTS 1342, or consent of program coordinator
Orientation to funeral directing functions is made possible by introducing students to equipment, procedures, and functions in the daily operation of a funeral home. Onsite observations and participation enable students to experience concepts presented in lecture.
(3 sem hrs; 2 lec, 4 clinic) (MS 1312)#

MRTS 1342: Mortuary Management I
Corequisites: MRTS 1211, MRTS 1301, MRTS 1310, or consent of program coordinator
This is a computer-intensive course directed at accounting and bookkeeping fundamentals, processing of survivor benefits, and various software applications with focus on mortuary operations, including the generating of numerous forms and documents related to disposal of human remains.
(3 sem hrs; 3 lec,) (MS 1313)#

MRTS 2335: Mortuary Jurisprudence
Prerequisites: MRTS 1211, MRTS 1301, MRTS 1310, MRTS 1342 or consent of program coordinator
Mortuary jurisprudence and business law applicable to attending and pre-need aspects of a funeral home are surveyed in this course. Ethical behavior as an essential professional trait. The goal of this course is to enable the funeral service professional to practice in compliance with the various regulatory agencies. A writing-intensive course.
(3 sem hrs; 3 lec) (MS 2311)#

MRTS 2342: Mortuary Management II
Prerequisite: MRTS 1342 or consent of program coordinator
A course in small business management. Introduction to concepts, techniques, and procedures necessary for the operation of a successful mortuary. Funeral service merchandising and marketing techniques.
(3 sem hrs; 3 lec) (MS 2312)

MRTS 1360: Funeral Service Clinical I
Corequisite: MRTS 2445.
Participation in funeral directing and embalming activities under the direct supervision of the program faculty and assigned clinical supervisors in cooperation with area funeral homes. Focus and emphasis in this portion of clinical experience will be concentrated in the area of embalming and restorative technique. A weekly one-hour seminar is held in conjunction with on-the-job training.
(3 sem hrs; 1 lec, 8 clinic) (MS 2313)#

MRTS 2360: Funeral Service Clinical II
Prerequisites: MRTS 1360, MRTS 2445
Corequisite: MRTS 2447 or consent of program coordinator
A continuation of MRTS 1360. Focus and emphasis in this portion of clinical experience will be concentrated in the area of funeral home management and funeral directing.
(3 sem hrs; 1 lec, 8 clinic) (MS 2314)#

MRTS 2432: Human Anatomy
Corequisites: MRTS 1360, MRTS 2445 or consent of program coordinator
The major systems of the human body with special emphasis on circulation are presented; prosection in the program lab is included.
(4 sem hrs; 3 lec, 4 lab) (MS 2411)#

MRTS 2445: Technical Procedures I
Corequisites: MRTS 1360, MRTS 2432 or consent of program coordinator
Basic techniques of embalming through the study of the disinfection and preservation of deceased human remains. Included are instruments, treatment planning, and the practical application of modern embalming theory.
(4 sem hrs; 3 lec, 3 lab) (MS 2412)#
MRTS 2447: Technical Procedures II
Prerequisites: MRTS 1360, MRTS 2432, MRTS 2445
Corequisite: MRTS 2360 or consent of program coordinator
Basic techniques involved in restorative art procedures of deceased human remains are the fundamentals of this course. Included are facial and cranial anatomy, anatomical modeling, and familiarization with instruments and techniques. Color as involved in cosmetics and lighting will be explored. A continuation of MRTS 2446.
(4 sem hrs; 3 lec, 3 lab) (MS 2413)\#

MRTS 1391: Special Topics in Funeral Service and Mortuary Science
Prerequisite: MRTS 1211, MRTS 1301, MRTS 1310, METS 1342 or permission of the Program Coordinator
Identification of the specific role and scope of the funeral director. Discussion and presentation of scenarios where funeral directing and embalming reflect commonalities. Emphasis on incorporation of state regulation and recognition of preservation process.
(3 sem hrs; 3 lec, 1 lab)

MRTS 2179: National Funeral Service Board Review
Corequisite: MRTS 2360 and MRTS 2447
Overview of the National Board Examination for Funeral Service. Practice examinations for both arts and sciences. Completion of the National Board Examinations.
(1 sem hrs; 1 lec)

MUSIC
Applied Music
Individual instruction available in violin, viola, cello, double bass, electric bass (not as major instrument), flute, oboe, bassoon, clarinet, saxophone, trumpet, horn, trombone, baritone, tuba, percussion, guitar, organ, piano, harp, voice, and independent study. Depending upon availability of faculty. One 30-minute lesson per week for one semester hour credit; one 60-minute lesson per week for two semester hours credit.
All music majors must declare a particular instrument (or voice) as their major performance area, and take applied (private) instruction in their chosen area for a minimum of four semesters. Music majors are also required to study piano for four semesters as a minor area of performance; (majors declaring piano as their major performance area must choose a different instrument/voice as the minor area). Majors are expected to already possess basic technical and musical skills in their chosen major area; those students not possessing the requisite skills, as determined by the music faculty, must remain in freshman level applied music (MUAP 12XX) for their particular instrument/voice, until approved by the applied instructor for the sophomore level.

MUAP 11XX*, 21XX*: [INSTRUMENT/VOICE] Elective
See following list for last two digits of MUAP number, corresponding to the particular instrument chosen
One 30-minute lesson per week, minimum three hours of outside practice per week required. For non-music majors who desire a faster-paced, more intense approach to learning the instrument than can be offered in a thirty-minute weekly lesson. Also open to music majors who need to develop requisite skills in their major instrument. Emphasis on basic technique and musicianship, with appropriate literature tailored to the needs/desires of the individual student.
(1 sem hr; 1/2 hr lesson, 3 hrs practice)

MUAP 12XX*, 22XX*: [INSTRUMENT/VOICE] Minor
Prerequisite: Audition or consent of instructor. See following list for last two digits of MUAP number, corresponding to the particular instrument chosen
One 60-minute lesson per week, minimum six hours of outside practice per week required. For non-music majors who desire a faster-paced, more intense approach to learning the instrument than can be offered in a thirty-minute weekly lesson. Also open to music majors who need to develop requisite skills in their major instrument. Emphasis on basic technique and musicianship, with appropriate literature tailored to the needs/desires of the individual student.
(2 sem hr; 1 hr lesson, 6 hrs practice)

ELECTIVE Music Applied numbers by instrument/voice:
(First set of numbers refers to first semester of study, second set of numbers refers to second semester of study)
Violin (01, 02), Viola (05, 06), Cello (09, 10), Electric Bass (15, 16), Flute (17, 18), Oboe (21,22), Bassoon (25, 26), Clarinet (29, 30), Saxophone (33, 34), Trumpet (37, 38), Horn (41, 42), Trombone (45, 46), Baritone (49, 50), Tuba (53, 54), Percussion (57, 58), Guitar (61, 62), Organ (65, 66), Piano (69, 70), Harp (77, 78), Voice (81, 82), Independent Study (87, 88)

MUAP 11XX*, 21XX*: [INSTRUMENT/VOICE] Elective
See following list for last two digits of MUAP number, corresponding to the particular instrument chosen
One 30-minute lesson per week, minimum three hours of outside practice per week required. For non-music majors who desire a faster-paced, more intense approach to learning the instrument than can be offered in a thirty-minute weekly lesson. Also open to music majors who need to develop requisite skills in their major instrument. Emphasis on basic technique and musicianship, with appropriate literature tailored to the needs/desires of the individual student.
(1 sem hr; 1/2 hr lesson, 3 hrs practice)

MUAP 12XX*, 22XX*: [INSTRUMENT/VOICE] Minor
Prerequisite: Audition or consent of instructor. See following list for last two digits of MUAP number, corresponding to the particular instrument chosen
One 60-minute lesson per week, minimum six hours of outside practice per week required. For non-music majors who desire a faster-paced, more intense approach to learning the instrument than can be offered in a thirty-minute weekly lesson. Also open to music majors who need to develop requisite skills in their major instrument. Emphasis on basic technique and musicianship, with appropriate literature tailored to the needs/desires of the individual student.
(2 sem hr; 1 hr lesson, 6 hrs practice)
MINOR and MAJOR Music Applied numbers by instrument/voice
(First set of numbers refers to first semester of study, second set of numbers refers to second semester of study):
Violin (03, 04), Viola (07, 08), Cello (11, 12), Double Bass (13, 14), Flute (19, 20), Oboe (23, 24), Bassoon (27, 28), Clarinet (31, 32), Saxophone (35, 36), Trumpet (39, 40), Horn (43, 44), Trombone (47, 48), Baritone (51, 52), Tuba (55, 56), Percussion (59, 60), Guitar (63, 64), Organ (67, 68), Piano (71, 72), Harp (79, 80), Voice (83, 84).

An Example:
A student desiring to study flute would register for one of the following:
MUAP 1117 Non-music major, 30-minute weekly lesson
MUAP 1217 Non-music major, 60-minute weekly lesson
MUAP 1119 Music major choosing flute as the minor area, 30-minute weekly lesson
MUAP 1219 Music major choosing flute as the major area, 60-minute weekly lesson

MUSI 1301*: Rudiments of Music
Basic elements of music including notation, intervals, triads, scales, key signatures. Designed for elementary education majors and music majors deficient in theory background.
(3 sem hrs; 3 lec) (MUSIC 3293)#

MUSI 1300*: Foundations in Music
Emphasis on elementary part-writing skills including experience in scales, intervals, chord construction and progresses. Additional experience in listening as it relates to melodic, rhythmic, and harmonic elements in composition.
(3 sem hrs; 3 lec) (MUSIC 3333)#

MUSI 1306*: Music Appreciation
Designed for the non-music major to increase understanding and enjoyment of music as represented by prominent composers throughout the history of Western Civilization. Background in music not required.
(3 sem hrs; 3 lec) (MUSIC 3093)#

MUSI 1310*: American Music
General survey of various styles of music in America. Topics will include jazz, ragtime, folk, rock, and contemporary art music, as well as music from all historical periods of American culture.
(3 sem hrs; 3 lec)

MUSI 1121*, 1122*, 2121*, 2122*: Concert Band
Prerequisite: Consent of instructor and audition
Ensemble studying and performing literature for wind ensemble and concert band.
(1 sem hr; 3 studio) (MUSIC 3011, 3021, 4011, 4021)#

MUSI 1123*, 1124*, 2123*, 2124*: Jazz Ensemble
Perform and study jazz, jazz-rock, swing and modern experimental jazz compositions. Audition required. Financial assistance available.
(1 sem hr; 3 studio) (MUSIC 3111, 3121, 4111, 4121)#

MUSI 1125*, 1126*, 2125*, 2126*: Lab Band
Study and perform jazz, rock, swing, and modern experimental compositions for a small combo. Audition required.
(1 sem hr; 3 studio) (MUSIC 3131, 3141, 4131, 4141)#

MUSI 1127*, 1128*, 2127*, 2128*: Chamber Orchestra
Perform chamber orchestra literature.
(1 sem hr; 3 studio) (MUSIC 3411, 3421, 4411, 4421)#

MUSI 1131*, 1132*: Chamber Music
Study and perform chamber music literature for small performing groups. Time to be arranged with instructor.
(1 sem hr; 3 studio) (MUSIC 3071, 3081)#

MUSI 1133*, 1134*: Brass Ensemble
Study and perform literature for brass instruments. Time to be arranged.
(1 sem hr; 3 studio) (MUSIC 3431, 3441)#

MUSI 1141*, 1142*, 2141*, 2142*: Concert Choir
Membership by audition. Literature includes selections from all periods.
(1 sem hr; 5 studio) (MUSIC 3211, 3221, 4211, 4221)#

MUSI 1143*, 1144*, 2143*, 2144*: Choral Unions (Amarillo Civic Chorus)
Prerequisite: Audition
Literature includes selections from all periods. Meets one evening each week. Advanced choral literature stressed.
(1 sem hr; 3 studio) (MUSIC 3671, 3681, 4671, 4681)#

MUSI 1151*, 1152*, 2151*, 2152*: Chamber Choir
Smaller choral groups performing various styles of music depending upon the particular ensemble, such as vocal jazz, men's chorus, chamber ensemble, etc. Members must also enroll in Concert Choir.
(1 sem hr; 3 studio) (MUSIC 3311, 3321, 4311, 4321)#

MUSI 1157*, 1158*, 2157*, 2158*: Opera Workshop
Study, preparation, and stage production of full-length operas as well as shorter, one-act operas, presented each semester. Audition required for all leading roles. Credit also given for participation in chorus, set design and construction, properties, make-up, lighting, publicity, ticket sales, and costumes.
(1 sem hr; 3 studio and production) MUSIC 3171, 3181, 4171, 4181)#

MUSI 1181*, 1182*: Piano Class I and II
For students with a limited keyboard background. Includes scales, chord progressions, technical studies, sightreading drill, short selections from solo literature.
(1 sem hr; 3 studio) (MUSIC 3481, 3491)#

MUSI 1183*, 1184*: Voice Class I and II
For non-vocal majors; the fundamentals of correct breathing, tone production, and diction. Both group and individual performance.
(1 sem hr; 3 studio) (MUSIC 3531, 3541)#

MUSI 1190*: Strings Class I
Class instruction in the fundamental techniques of playing and teaching stringed instruments. This course is primarily for parents of beginning students in the Amarillo College Suzuki String program.
 (1 sem hr; 3 studio) (MUSIC 4231)
MUSI 2190*: Strings Class II  
**Prerequisite:** Successful completion of MUSI 1190  
Continuing class instruction in the fundamental techniques of playing and teaching stringed instruments. This course is primarily for parents of beginning students in the Amarillo College Suzuki String program.  
(1 sem hr; 3 studio) (MUSIC 4241)#

MUSI 1116*, 1117*: Elementary Ear-Training I and II  
Rhythmic, melodic, and harmonic dictation; rhythmic and melodic sightreading; diatonic harmonic progressions to be played at the piano. Concurrent enrollment required in MUSI 1211 or 1212, Elementary Theory I or II.  
(1 sem hr; 1 lec, 2 lab) (MUSIC 3191, 3201)#

MUSI 1211*, 1212*: Elementary Theory I and II  
Review fundamentals; study diatonic harmonization, cadences, diatonic seventh chords, and modulation. Concurrent enrollment required in MUSI 1116 or 1117, Elementary Ear-Training I or II.  
(2 sem hrs; 2 lec, 1 lab) (MUSIC 4191, 4201)#

MUSI 2116*, 2117*: Advanced Ear-Training  
Continuation of MUSI 3191 and 3201, extending into seventh-chords and modulations, chromatism, and contemporary idioms. Concurrent enrollment in Advanced Theory.  
(1 sem hr; 1 lec, 2 lab) (MUSIC 4191, 4201)#

MUSI 2211*, 2212*: Advanced Theory  
Diatonic harmony; chromaticism and late Romantic and Contemporary idioms. Concurrent enrollment in Advanced Ear training.  
(2 sem hrs; 2 lec, 1 lab) (MUSIC 4192, 4202)#

MUSI 1308*, 1309*: Introduction to Music Literature  
Examine basic information and techniques for the study of music literature. Survey from Antiquity to the present.  
(3 sem hrs; 3 lec) (MUSIC 3492, 3502)#

MUSI 1171, 1172, 2171, 2172: Fine Arts Seminar  
One hour seminar per week on topics of importance to the musician. Attendance required at specified number of fine arts activities.  
(1 sem hr; 1 lec) (MUSIC 3151, 3161, 4151, 4161)#

MUSI 1290*, 1291*: Electronic Music  
**Prerequisite:** Successful completion of at least one of the following courses: MUSI 1300, MUSI 1301, MUSI 1211, MUSI 1181, or MUAP 1169, or consent of instructor  
Introduction to the use of synthesizers, computers, sequencing and music printing software, multi-track records and other MIDI (Music Instrument Digital Interface) devices in the notation, arrangement, composition and performance of music.  
(1 sem hr; 1 lec) (MUSIC 3511)#

MUSI 1011, 1012, 2011, 2012: Recital Attendance  
One hour seminar per week on topics of importance to the musician, including student recitals, guest artist speakers, and music careers. Attendance required at specified number of fine arts activities.  
(1 sem hr; 1 lec) (MUSIC 3151, 3161, 4151, 4161)#

---

**NONDESTRUCTIVE TESTING AND EVALUATION**

ENTC 1341: Metallurgy  
A comprehensive study of the refining processes, mechanical and physical properties, heat treating, testing, and alloying of ferrous and nonferrous materials.  
(3 Sem Hrs; 3 Lec)

NDTE 1271: Introduction to NDT  
Introduction to the historical development and demand for nondestructive testing and evaluation methods. Emphasis on the different methods of nondestructive testing, their function and application.  
(2 Sem Hrs; 2 Lec)

NDTE 1405: Introduction to Ultrasonic Testing  
**Prerequisite:** MATH 1314 or Concurrent Enrollment  
A theoretical study and practical application of ultrasonic testing methods, including the study of ultrasonic capabilities and limitations, equipment, proper application, and written practices and procedures.  
(4 Sem Hrs; 2 Lec; 4 Lab)

NDTE 1410: Liquid Penetrant / Magnetic Particle Testing  
A study and practical application of liquid penetrant and magnetic particle testing and evaluation methods. Testing and evaluation procedures, codes, standards and specifications will be followed.  
(4 Sem Hrs; 2 Lec; 4 Lab)

NDTE 1440: Eddy Current Testing  
**Prerequisite:** MATH 1314 or Concurrent Enrollment  
The study and application of electromagnetic testing methods for nondestructive testing and evaluation. Eddy current and flux leakage testing procedures are practiced. Written reports referencing testing and evaluation procedures, codes, standards and specifications will be produced.  
(4 Sem Hrs; 2 Lec; 4 Lab)

NDTE 1450: Introduction to Radiographic Testing  
(Radiography for Welders)  
**Prerequisite:** NUCP 1319  
The study and application of radiographic testing methods for nondestructive testing and evaluation. Adherence to proper radiographic work practices; use of protective equipment, instrumentation and exposure devices; and safety are taught and followed. Identification of manufacturing processes and associated discontinuities are studied.  
(4 Sem Hrs; 2 Lec; 4 Lab)

NDTE 2401: Advanced Ultrasonic Testing  
**Prerequisite:** NDTE 1405  
Designed to strengthen the students knowledge and skills in ultrasonic testing. Emphasis is on welded plate, pipe, and TKY connections, immersion testing, written practices, and procedures.  
(4 Sem Hrs; 2 Lec; 4 Lab)
NDTE 2470: Advanced Radiographic Testing
Prerequisite: NDTE 1450
The advanced study and application of radiographic testing methods for nondestructive testing and evaluation. Film handling, loading and processing in respect to image quality and evaluation are practiced. Students produce radiographic reports based upon established standards, codes, and procedures.
(4 Sem Hrs; 2 Lec; 4 Lab)

NUCP 1319: Radiation Physics
A study of atomic structure, radioactivity, and the interaction of radiation with matter. Topics include radioactive decay law, gamma attenuation equation, and inverse square law.
(3 Sem Hrs; 3 lec)

NUCP 1371: Radiation Safety for Industrial Radiographers
Introduction to the field of radiation protection: protection of human beings from injury by radiation. Topics include dose and exposure measurements and units, permissible exposure limits, and internal exposure evaluations. This course qualifies the student, upon successful completion, to become a radiographer trainee under a radioactive materials license or certificate of registration for industrial radiation machines.
(3 Sem Hrs; 3 Lec)

NUCLEAR MEDICINE
NMTT 1266: Practicum I
Corequisite: NMTT 1301 or consent of department chair
Practical general training and experiences in the workplace. The college, with the prospective 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.
(2 sem hrs; 16 clinic)

NMTT 1267: Practicum II
Prerequisite: NMTT 1266
Practical general training and experiences in the workplace. The college, with the prospective 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.
(2 sem hrs; 16 clinic)

NMTT 1305: Nuclear Medicine Data Processing
Corequisite: NMTT 2266
Develops proficiency in the use of nuclear medicine computer system including computer processing of various nuclear medicine procedures.
(3 sem hrs; 2 lec, 4 lab)

NMTT 1309: Nuclear Medicine Instrumentation
Prerequisite: NMTT 2309
Corequisite: NMTT 2313
Theory and application of electronic instrumentation used in the detection and analysis of ionizing radiation with special emphasis on gamma spectrometry and quality assurance relevant to nuclear medicine instruments.
(3 sem hrs; 3 lec)

NMTT 1313: Nuclear Medicine Physics
Prerequisite: SCIT 1320 or CHEM 1305 or consent of department chair
This course provides a comprehensive study of the physical principles associated with nuclear medicine with emphasis on the understanding of radioactivity, decay modes, interactions of radiation with matter and the mathematics needed for radioactivity calculations.
(3 sem hrs; 3 lec)

NMTT 1301: Introduction to Nuclear Medicine
This course includes an introduction to the field of nuclear medicine with emphasis on the principles of radiation safety, health physics, and the various studies performed in a nuclear medicine department or area.
(3 sem hrs; 3 lec)

NMTT 2235: Nuclear Medicine Technology Seminar
Prerequisite: NMTT 2313
Capstone course focusing on the synthesis of professional knowledge, skills and attitudes in preparation for professional employment and lifelong learning; demonstrate entry level competencies for professional employment; review of didactic and practical experience in preparation for professional registration, certification and licensure.
(2 sem hrs; 2 lec)

NMTT 2266: Practicum III
Prerequisite: NMTT 1267
Practical general training and experiences in the workplace. The college, with the prospective 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.
(2 sem hrs; 14 clinic)

NMTT 2267: Practicum VI
Prerequisite: NMTT 2367
Practical general training and experiences in the workplace. The college, with the prospective 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.
(2 sem hrs; 18 clinic)

NMTT 2301: Radiochemistry and Radiopharmacy
Prerequisite: CHEM 1305 or equivalent course
Basic concepts of radiochemistry and radiopharmacy including the atomic structure, radioactive decay, and production of various radionuclides; emphases on radiopharmaceutical and their ideal characteristics, biodistribution, and clinical applications; and the various dosage forms in which they may be utilized.
(3 sem hrs; 3 lec)

NMTT 2309: Nuclear Medicine Methodology II
Prerequisite: NMTT 1313
Focus on all the basic principles involved in all diagnostic and therapeutic tests and procedures normally found in a nuclear medicine facility with emphasis on anatomy, physiology, pathology, radiopharmaceutical, instrumentation, data analysis, and diagnostic value. Includes the cardiovascular, genitourinary, respiratory systems and miscellaneous procedures.
(3 sem hrs; 3 lec)
NMTT 2313: Nuclear Medicine Methodology III
Prerequisite: NMTT 2309
Focus on all the basic principles involved in all diagnostic and therapeutic tests and procedures normally found in a nuclear medicine facility with emphasis on anatomy, physiology, pathology, radiopharmaceutical, instrumentation, data analysis, and diagnostic value. Includes the gastrointestinal, central nervous, skeletal systems, tumor and inflammation processes.
(3 sem hrs; 3 lec)

NMTT 2366: Practicum IV
Prerequisite: NMTT 2366
Practical general training and experiences in the workplace. The college, with the prospective 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.
(3 sem hrs; 24 clinic)

NMTT 2367: Practicum V
Prerequisite: NMTT 2366
Practical general training and experiences in the workplace. The college, with the prospective 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.
(3 sem hrs; 24 clinic)

NURSING (Associate Degree Nursing)
RNSG 2307 Transition to Nursing Practice
Prerequisites: BIOL 2401, BIOL 2402, BIOL 2421, PSYC 2301, HECO 1322, ENGL 1301, SPCH and MATH from approved list
Prerequisites/Corequisites: BIOL 2421, HUMANITIES, RNSG 1115, and either HPRS 2200 or RNSG 1301 is required
Introduction to selected concepts related to the role of the professional nurse as a provider of care, coordinator of care, and member of the profession. Review of trends and issues impacting nursing and health care today and in the future. Topics include knowledge, judgment, skill and professional values within a legal/ethical framework. Critical thinking and nursing process will be used as a framework to develop care for medical-surgical and childbearing clients and families.
(3 sem hrs; 3 lec, 1 lab) (NURS 3013)#

RNSG 1209: Introduction to Nursing
Corequisite: RNSG 1105
Prerequisites: BIOL 2401, PSYC 2301, MATH from approved list, or concurrent enrollment is required
Overview of nursing and the role of the professional nurse as a provider of care, coordinator of care and member of a profession. Topics include knowledge, judgment, skills and professional values with a legal/ethical framework.
(2 sem hrs; 2 lec, 1 lab) (NURS 3023/RNSG 1309)#

RNSG 1105: Nursing Skills I
Corequisite: RNSG 1209
Study of the concepts and principles essential for demonstrating competence in the performance of nursing procedures. Topics include knowledge, judgment, skills and professional values within a legal/ethical framework. This foundation course is based on the belief that the practice of nursing is guided by ideas and values which reflect a concern for quality of life and a respect for human value.
(1 sem hr; 1 lec, 1 lab)

RNSG 1301 Pharmacology
Prerequisites: BIOL 2401, PSYC 2301, MATH from approved list, RNSG 1209, RNSG 1105
Corequisite: BIOL 2402
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. Critical thinking is used to identify and respond to clinical situations requiring drug interventions.
(3 sem hrs; 3 lec, 1 lab) (NURS 3032)#

RNSG 1331: Principles of Clinical Decision Making
Corequisite: RNSG 1362, RNSG 1301, BIOL 2402
Prerequisites: BIOL 2401, PSYC 2301, MATH from approved list, RNSG 1209, RNSG 1105, RNSG 1301, BIOL 2402
Examination of selected principles related to the continued development of the professional nurse as a provider of care, coordinator of care, and member of a profession. Emphasis on clinical decision making for clients in medical-surgical settings experiencing health problems involving fluid and electrolytes, perioperative care, pain, respiratory disorders, peripheral vascular disorders, immunologic disorders, infectious disorders, oncology, gerontology, and hematological disorders. Discussions of knowledge, judgment, skill, and professional values within a legal/ethical framework. Includes implementation of the nursing process to assist adult clients in the promotion, maintenance or restoration of health.
(3 sem hrs; 3 lec, 1 lab) (NURS 3036/RNSG 1341)#

RNSG 1362 Clinical - Principles of Clinical Decision Making
Corequisite: RNSG 1331
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.
(3 sem hrs; 9 clinical)

RNSG 1115: Health Assessment
Prerequisites: RNSG 1301, RNSG 1331, RNSG 1362, BIOL 2401 or consent of department chair
Development of skills and techniques required for a comprehensive health assessment within a legal/ethical framework. Includes adult head-to-toe assessment and interviewing techniques.
(1 sem hr; 1 lec, 1 lab) (NURS 3031)#
RNSG 1247: Concepts of Clinical Decision-Making I
Corequisite: RNSG 1263, BIOL 2421, RNSG 1115
Prerequisites: RNSG 1331, RNSG 1301, RNSG 1362, BIOL 2421, RNSG 1115.
Integration of previous knowledge and skills into the continued development of the professional nurse as a provider of care, coordinator of care, and member of a profession. Emphasis on clinical decision-making for clients in medical-surgical settings experiencing health problems involving endocrine and metabolic disorders, reproductive and sexual disorders, eye-ear-nose-throat disorders and integumentary disorders and advanced perioperative concepts. Discussion of knowledge, judgment, skills, and professional values within a legal/ethical framework.
(2 sem hrs; 2 lec, 1 lab) (RNSG 1244)#

RNSG 1263 Clinical - Concepts of Clinical Decision Making I
Corequisite: RNSG 1247
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.
(2 sem hrs; 6 clinic)

RNSG 1251 Care of the Childbearing Family
Corequisite RNSG 1260, BIOL 2421, RNSG 1115, RNSG 1247, RNSG 1263
Prerequisites: RNSG 1301, RNSG 1331, RNSG 1362, BIOL 2401, BIOL 2402, BIOL 2421, RNSG 1115, RNSG 1247, RNSG 1263.
Study of concepts related to the provision of nursing care for childbearing families. Topics may include selected complications. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. Focus in on delivery of safe nursing care, critical thinking and integration of communication skills.
(2 Sem hrs; 2 lec, 1 lab)

RNSG 1260 Clinical - Care of the Childbearing Family
Corequisite: RNSG 1251
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.
(2 sem hrs; 6 clinical)

RNSG 1248: Concepts of Clinical Decision Making II
Corequisite: RNSG 2261
Prerequisites: ENGL 1301, SPCH from the approved list, HECO 1322, RNSG 1115, RNSG 1251, RNSG 1260, RNSG 1247, RNSG 1263 or RNSG 2307, RNSG 1301
Integration of previous knowledge and skills into the continued development of the professional nurse as a provider of care, coordinator of care, and member of a profession. Emphasis on clinical decision-making for clients in medical-surgical settings experiencing health problems involving rheumatic disorders, gastrointestinal disorders, liver and biliary disorders, and musculoskeletal disorders. End of life care is integral to the course. Discussion of knowledge, judgement, skills, and professional values within a legal/ethical framework.
(2 sem hrs; 2 lec, 1 lab) (RNSG 1245)#

RNSG 2261 Clinical - Concepts of Clinical Decision Making II
Corequisite: RNSG 1248
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts to clients on medical surgical units. Direct supervision is provided by the clinical professional.
(2 sem hrs; 6 clinic)

RNSG 2213 Mental Health Nursing
Corequisite: RNSG 2161
Prerequisites: ENGL 1301, SPCH from the approved list, HECO 1322, RNSG 1115, RNSG 1251, RNSG 1260, RNSG 1247, RNSG 1263 or RNSG 2307, RNSG 1301
Principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of clients and their families. Mental health promotion, maintenance and restoration are emphasized.
(2 sem hrs; 2 lec, 1 lab) (NURS 4044)#

RNSG 2161 Clinical - Mental Health Nursing
Corequisite: RNSG 2213
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.
(1 sem hr; 3 clinical) (NURS 4044)#

RNSG 2201: Care of Children and Families
Corequisite: RNSG 2260
Prerequisites: ENGL: 1301, SPCH from approved list, HECO 1322, RNSG 1115, RNSG 1251, RNSG 1260, RNSG 1247, RNSG 1263
Study of the concepts related to the provision of nursing care for children and their families, emphasizing judgment, and professional values within a legal/ethical framework. Health promotion, maintenance and restoration as well as growth and development are emphasized.
(2 sem hrs; 2 lec, 1 lab)

RNSG 2260: Clinical-Care of Children and Families
Corequisite: RNSG 2201
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.
(2 sem hrs; 6 clinical)

RNSG 2231: Advanced Concepts of Adult Health
Corequisite: RNSG 2262, HUMANITIES from approved list
Prerequisites: RNSG 2201, RNSG 2260, RNSG 1248, RNSG 2261, RNSG 2213, RNSG 2161, HUMANITIES from approved list
Application of advanced concepts and skills for development of the professional nurse’s roles in complex nursing situations with adult clients/families in intermediate and critical care settings. Emphasis on knowledge, judgment, skills and professional values within a legal/ethical framework.
(2 sem hrs; 2 lec, 1 lab) (NURS 4064/RNSG 2241)#
RNSG 2262: Clinical - Advanced Concepts of Adult Health
Corequisite: RNSG 2231
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.
(2 sem hrs; 6 clinic)

RNSG 2221: Management of Client Care
Corequisite: RNSG 2263, RNSG 2231, RNSG 2262, RNSG 1110, RNSG 2163, HUMANITIES from approved list
Prerequisites: RNSG 2201, RNSG 2260, RNSG 2213, RNSG 2161, RNSG 1248, RNSG 2261, HUMANITIES from approved list
Exploration of leadership and management principles applicable to the role of the nurse as provider of care, coordinator of care, and member of a profession. Includes application of knowledge, judgment, skills, and professional values within a legal/ethical framework. Emphasizes multidisciplinary communication and resource management within health care systems.
(2 sem hrs; 2 lec, 1 lab) (NURS 4074)#

RNSG 2263: Clinical - Management of Client Care
Corequisite: RNSG 2221
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.
(2 sem hrs; 6 clinic)

RNSG 1110: Introduction to Community-Based Nursing
Corequisite: RNSG 2163, HUMANITIES from approved list
Prerequisites: RNSG 2201, RNSG 2260, RNSG 2213, RNSG 2161, RNSG 1248, RNSG 2261, HUMANITIES from approved list
Overview of the delivery of nursing care in a variety of community-based settings; application of systematic problem-solving process and critical thinking skills, focusing on the examination of concepts and theories relevant to community-based nursing; and development of judgment, skill and professional values within a legal/ethical framework.
(1 sem hr; 1 lec, 1 lab)

RNSG 2163: Clinical - Community-Based Nursing
Corequisite: RNSG 1110
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.
(1 sem hr; 3 clinic)

RSPT 1137 Basic Dysrhythmia Interpretation
A comprehensive study of the electrical conduction system of the heart, electrophysiology, and characteristics of the common atrial, junctional, and ventricular dysrhythmias including atrioventricular blocks.
(1 sem hr; 1 lec) (NURS 4121)#

RNSG 2216: Operating Room Techniques
Corequisite: RNSG 1262
Prerequisites: RNSG 1209, RNSG 1105, RNSG 1331, RNSG 1362
Study of the concepts and principles of perioperative nursing that are essential for competence in the performance of nursing skills. Topics will include: knowledge, judgment, procedures, and professional values within a legal/ethical framework. Emphasis in the utilization of critical thinking and the nursing process in the promotion, restoration, and maintenance of health in the holistic care of the culturally diverse adult client and families in the perioperative setting.
(2 sem hrs; 2 lec, 1 lab) (NURS 4123)#

RNSG 1262: Clinical - Operating Room Techniques
Corequisite: RNSG 2216
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.
(2 sem hrs; 6 clinic)

HPRS 1206: Medical Terminology
A study of common medical terminology, word origin, structure and application.
(2 sem hrs; 2 lec)

HPRS 2200: Pharmacology for Health Professionals
Corequisite: RNSG 1108 recommended
A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administrations and calculation of dosages.
(2 sem hr; 2 lec)

RNSG 1108: Dosage Calculations for Nursing
Corequisite: HPRS 2200 recommended
Dosage calculations include reading, interpreting and solving calculation problems encountered in the preparation of medications; and conversion of measurements within the apothecary, avoirdupois, and metric system. Medication administration skills will be included.
(1 sem hr; 1 lec, 1 lab)

NURSING (Vocational)

VNSG 1323: Basic Nursing Skills
Corequisites: VNSG 1326, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
Prerequisite: BIOL 2401, HECO 1322
Mastery of entry level nursing skills and competencies for a variety of health care settings. Utilization of the nursing process as the foundation for all nursing interventions.
(3 sem hrs; 3 lec, 3 lab) (NV 3013)#

VNSG 1236: Mental Health
Corequisites: VNSG 1323, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
Prerequisites: BIOL 2401, HECO 1322
Introduction to the principles and theories of positive mental health and human behaviors. Topics include emotional responses, coping mechanisms, and therapeutic communication skills.
(2 sem hr; 2 lec) (NV 3014)#
VNSG 1304: Foundations of Nursing
Corequisites: VNSG 1323, VNSG 1236, VNSG 1400, VNSG 1360, RNSG 1301
Prerequisites: BIOL 2401, HECO 1322
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.
(3 sem hrs; 3 lec) (NV 3014)#

VNSG 1360: Clinical - Nursing in Health and Illness I
Corequisites: VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, RNSG 1301
Prerequisites: BIOL 2401, HECO 1322
A health-related work-based learning experience that enables the student to apply specialized occupation theory, skills and concepts. Direct supervision is provided by the clinical professional.
(3 sem hrs; 12 clinic) (NV 3029)#

VNSG 1301: Pharmacology
Prerequisites/Corequisites: BIOL 2401, PSYC 2301, MATH from approved list, RNSG 1309, and satisfactory completion or concurrent enrollment in BIOL 2402
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. Critical thinking is used to identify and respond to clinical situations requiring drug interventions.
(3 sem hrs; 3 lec, 1 lab) (NURS 3122)#

VNSG 1400: Nursing in Health and Illness I
Corequisites: VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, RNSG 1301
Prerequisites: BIOL 2401, HECO 1322
Introduction to general principles of growth and development, primary health care needs of the client across the life span, and therapeutic nursing interventions.
(4 sem hrs; 4 lec, 4 lab)

VNSG 1230: Maternal-Neonatal Nursing
Corequisites: VNSG 2160, VNSG 1234, VNSG 2161, VNSG 1409, VNSG 1361, VNSG 2431, VNSG 2163
Prerequisites: BIOL 2401, HECO 1322, VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
Utilization of the nursing process in the assessment and management of the childbearing family. Emphasis on the bio-psycho-socio-cultural needs of the family during the phases of pregnancy, childbirth and the neonatal period including abnormal conditions.
(2 sem hrs, 2 lec) (NV 3155)#

VNSG 2160: Clinical - Maternal-Neonatal Nursing
Corequisites: VNSG 1230, VNSG 1234, VNSG 2161, VNSG 1409, VNSG 1361, VNSG 2431, VNSG 2163
Prerequisites: BIOL 2401, HECO 1322, VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
A health-related work-based learning experience that enables the student to apply specialized occupation theory, skills and concepts. Direct supervision is provided by the clinical professional.
(1 sem hr; 3 clinic)

VNSG 1304: Foundations of Nursing
Corequisites: VNSG 1323, VNSG 1236, VNSG 1400, VNSG 1360, RNSG 1301
Prerequisites: BIOL 2401, HECO 1322
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.
(3 sem hrs; 3 lec) (NV 3014)#

VNSG 1360: Clinical - Nursing in Health and Illness I
Corequisites: VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, RNSG 1301
Prerequisites: BIOL 2401, HECO 1322
A health-related work-based learning experience that enables the student to apply specialized occupation theory, skills and concepts. Direct supervision is provided by the clinical professional.
(3 sem hrs; 12 clinic) (NV 3029)#

VNSG 1361: Clinical - Nursing in Health and Illness II
Corequisites: VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, RNSG 1301
Prerequisites: BIOL 2401, HECO 1322, VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
Introduction to common health problems of the adult requiring medical and surgical interventions.
(4 sem hrs; 3 lec, 3 lab) (NV 3149)#

VNSG 1409: Nursing in Health and Illness II
Corequisites: VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
Prerequisites: BIOL 2401, HECO 1322, VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
Study of childhood diseases and child care from infancy through adolescence. Focus on the care of the well and the ill child utilizing the nursing process.
(2 sem hrs) (NV 3155)#

VNSG 2161: Clinical - Pediatrics C
Corequisites: VNSG 1230, VNSG 2160, VNSG 1234, VNSG 1409, VNSG 1361, VNSG 2431, VNSG 2163
Prerequisites: BIOL 2401, HECO 1322, VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
A health-related work-based learning experience that enables the student to apply specialized occupation theory, skills and concepts. Direct supervision is provided by the clinical professional.
(1 sem hr; 3 clinic)

VNSG 1361: Clinical - Nursing in Health and Illness II
Corequisites: VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
Prerequisites: BIOL 2401, HECO 1322, VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
A health-related work-based learning experience that enables the student to apply specialized occupation theory, skills and concepts. Direct supervision is provided by the clinical professional.
(3 sem hrs; 12 clinic)

VNSG 2431: Advanced Nursing Skills
Corequisites: VNSG 1230, VNSG 2160, VNSG 1234, VNSG 2161, VNSG 1409, VNSG 1361, VNSG 2163
Prerequisites: BIOL 2401, HECO 1322, VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
Mastery of advanced level nursing skills and competencies in a variety of health care settings utilizing the nursing process as a problem-solving tool.
(4 sem hrs; 4 lec) (NV 3149)#

VNSG 2163: Clinical - Advanced Nursing Skills
Corequisites: VNSG 1230, VNSG 2160, VNSG 1234, VNSG 2161, VNSG 1409, VNSG 1361, VNSG 2431, VNSG 2163
Prerequisites: BIOL 2401, HECO 1322, VNSG 1323, VNSG 1236, VNSG 1304, VNSG 1400, VNSG 1360, RNSG 1301
Mastery of advanced level nursing skills and competencies in a variety of health care settings utilizing the nursing process as a problem-solving tool.
(4 sem hrs; 4 lec) (NV 3149)#
OTHA 1160: Clinical I - Occupational Therapy Assistant
Corequisites: OTHA 1345, OTHA 2402
A health-related work-based learning experience that enables the student to apply specialized occupation theory, skills and concepts. Direct supervision is provided by the clinical professional.
(1 sem hr; 4 clinic)

OTHA 1162: Clinical III - Occupational Therapy Assistant
Prerequisites: OTHA 1161
A health-related work-based learning experience that enables the student to apply specialized occupation theory, skills and concepts. Direct supervision is provided by the clinical professional.
(1 sem hrs; 6 lec)

OTHA 1211: Occupational Performance throughout the Lifespan
Prerequisites: OTHA 1415
General principles of occupational performance throughout the lifespan.
(2 sem hrs; 2 lec)

OTHA 1305: Principles for Occupational Therapy
Introduction to occupational therapy including the historical development and philosophy. Topics include occupation in daily life; education and functions; occupational therapy personnel; current health care environments including moral, legal, and ethical issues.
(3 sem hrs; 3 lec)

OTHA 1309: Human Structure and Function in Occupational Therapy
Prerequisite: OTHA 1301
Corequisites: OTHA 1341, OTHA 1415
Study of the biomechanics of human motion. Emphasis on the musculoskeletal system including skeletal structure, muscles, nerves, and biomechanical assessment procedures.
(3 sem hrs; 2 lec, 2 lab)

OTHA 1341: Life Skills Performance of Childhood in Occupational Therapy
Corequisites: OTHA 1415
Study of the physical, psychosocial, and cognitive occupational performance of children (newborns to adolescent) with emphasis on characteristics of purposeful activities. Includes frames of reference, assessment/evaluation tools and techniques, and intervention strategies specific to this population.
(3 sem hrs; 3 lec)

OTHA 1249: Life Skills Performance of Maturity in Occupational Therapy
Prerequisite: OTHA 2201
Study of the physical, psychosocial, and cognitive occupational performance of maturity with emphasis on characteristics of purposeful activities. Includes frames of reference, assessment/evaluation tools and techniques, and intervention strategies specific to this population.
(2 sem hrs; 2 lec)

OTHA 1415: Therapeutic Media I in Occupational Therapy
Corequisites: OTHA 1309
Introduction to basic skills in various activities and tasks used as therapeutic intervention in occupational therapy. Emphasis on activity analysis; how to adapt and teach therapeutically; and how to supply, equip, and maintain a safe work environment.
(4 sem hrs; 3 lec, 3 lab)

OTHA 1419: Therapeutic Modalities I in Occupational Therapy
Prerequisites: OTHA 2201
Instruction in concepts and techniques, and assessments leading to proficiency in skills and activities used as treatment modalities in occupational therapy. Emphasis on the occupational therapy process within the context of the occupational performance model.
(4 sem hrs; 3 lec, 3 lab)

OTHA 1161: Clinical II - Occupational Therapy Assistant
Prerequisite: OTHA 1160
A health-related work-based learning experience that enables the student to apply specialized occupation theory, skills and concepts. Direct supervision is provided by the clinical professional.
(1 sem hr; 3 clinic)

OTHA 2201: Pathophysiology in Occupational Therapy
Prerequisite: OTHA 1211
Study of the pathology and general health management of diseases and injuries across the lifespan encountered in occupational therapy treatment settings. Topics include etiology, symptoms, and the physical and psychological reactions to diseases and injuries.
(2 sem hrs; 2 lec)

OTHA 2209: Mental Health in Occupational Therapy
Prerequisite: OTHA 2201
Study of the promotion of mental health through occupational therapy. Emphasis on theory and intervention strategies to enhance psychosocial function.
(2 sem hrs; 2 lec)

OTHA 2266: Practicum I - Occupational Therapy Assistant
Prerequisite: OTHA 2331
Practical, general workplace training supported by an individualized plan developed by the employer, college and student.
(2 sem hrs; 20 clinic)

OTHA 2267: Practicum II - Occupational Therapy Assistant
Prerequisite: OTHA 2266
Practical, general workplace training supported by an individualized plan developed by the employer, college and student.
(2 sem hrs; 20 clinic)
**OFFICE ADMINISTRATION**

**POFI 2301: Word Processing**  
*Prerequisite: POFI 1329 with a grade of C or higher or keyboarding skill of 40 wpm or consent of instructor*  
In-depth coverage of word processing software application. Emphasis on the use of text editing features to produce business documents.  
(3 sem. hrs; 2 lec, 4 lab) (BUS 3503, OFAD 2304)#

**POFI 2331: Desktop Publishing for the Office**  
*Prerequisite: ITSW 2331 with a grade of C or higher or demonstrated competence*  
In-depth coverage of desktop publishing terminology, text editing, and use of design principles to create publishing material using word processing desktop publishing features. Emphasis on layout techniques, graphics, and multiple page displays.  
(3 sem hrs; 2 lec, 4 lab) (BUS 4533)#

**POFL 1305: Legal Terminology**  
*Prerequisite: Keyboarding skill*  
An introduction to legal terminology including spelling, pronunciation, and definition of legal terms and an overview of the law and the professions.  
(3 sem hrs; 3 lec) (BUS 4673)#

**POFT 1127: Introduction to Keyboarding**  
Skill development in keyboarding with emphasis on alphabet, number, and symbol keys by touch. Skills can be applied to computers, typewriters, and other equipment with keyboards.  
(1 sem hr; 1 lec, 2 lab) (BUS 3711, OFAD 1101)#

**POFT 1301: Business English**  
Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business.  
(3 sem hrs; 3 lec) (BUS 3653, POFT 1302)#

**POFT 1309: Administrative Office Procedures I**  
*Prerequisite: POFI 2301 with a grade of C or better or demonstrated competence*  
Study of current office procedures, duties and responsibilities applicable to an office environment.  
(3 sem hrs; 2 lec, 4 lab) (BUS 4664, OFAD 2312)#

**POFT 1313: Professional Development for Office Personnel**  
Preparation for the workforce including ethics, interpersonal relations, professional attire, and career advancement.  
(3 sem hrs; 3 lec) (BUS 3633, HRPO 1311)#

**POFT 1319: Records and Information Management I**  
Introduction to basic records and information management. Includes the life cycle of a record, manual and electronic records management, and basic filing procedures and rules.  
(3 sem hrs; 3 lec) (BA 3373, OFAD 1314)#

**POFT 1325: Business Math and Machine Applications**  
Skill development in the use of electronic calculators and business math functions. Emphasis on business problem-solving skills using spreadsheet software and/or electronic calculator/keyboard.  
(3 sem hrs; 3 lec) (BUS 3603)#

**POFT 1329: Keyboarding and Document Formatting**  
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.  
(3 sem hrs; 3 lec, 1 lab) (BUS 3403, OFAD 1311)#

**POFT 1345: Shorthand/Notetaking I**  
An introduction to shorthand/notetaking principles. Practice in accurate reading and writing of notes to produce mailable documents from dictation.  
(3 sem hrs; 3 lec, 1 lab) (BUS 3313, OFAD 1301)#

**POFT 2203: Speed and Accuracy Building**  
*Prerequisite: Existing keyboarding skill of 25 wpm*  
Review, correct, improve, and/or perfect touch keyboarding techniques for the purpose of increasing speed and improving accuracy.  
(2 sem hr; 2 lec, 1 lab) (BUS 4411)#

**POFT 2301: Document Formatting and Skillbuilding**  
*Prerequisite: POFT 1329 or demonstrated competence*  
A continuation of keyboarding skills in document formatting, emphasizing speed, and accuracy. Emphasis on proofreading, editing, and following instructions, and keying documents from various copy.  
(3 sem hrs; 3 lec, 1 lab) (BUS 3413, OFAD 1312)#

---

*Texas Common Course Number

#Previous prefix and number
POFT 2312: Business Correspondence and Communication
Prerequisite: Keyboarding skills, POFT 1302
Development of writing skills to produce effective business documents.
(3 sem hrs; 3 lec) (BUS 4623, BUSI 1304)#

POFT 2333: Advanced Document Formatting and Skill-building
Prerequisite: POFT 2301 with a grade of C or higher or equivalent skill
Study of advanced concepts in a variety of office-simulated correspondence activities with emphasis on organization, prioritizing, decision making, composition, placement, accuracy, and speed development.
(3 sem hrs; 3 lec, 2 lab) (BUSI 4422, OFAD 2301)#

POFT 2343: Shorthand/Notetaking II
Prerequisite: POFT 1345
A continuation of shorthand/notetaking principles with advanced mastery of accurate reading and writing of notes to produce mailable documents from dictation.
(3 sem hrs; 3 lec, 1 lab) (BUS 3323, OFAD 1302)#

POFT 2264/2265: Practicum (Administrative Assistant/Secretarial Science, General)
Prerequisite: Consent of Office Administration Chair
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
(2 sem hrs; 20 hrs work/week) (BUS 5022)#

POFT 2364/2365: Practicum (Administrative Assistant/Secretarial Science, General)
Prerequisite: Consent of Office Administration Chair
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
(3 sem hrs; 30 hrs work/week) (BUS 5023)#

ACNT 1303: Introduction to Accounting I
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 reconciliation, and payroll.
(3 sem hrs; 3 lec, 1 lab) (BUS 3643, ACCT 1371)#

ITSC 1309: Integrated Software Applications I
Prerequisite: POFI 2331 with a grade of C or higher or demonstrated competence
Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combing documents using word processing spreadsheets, databases, and/or presentation media software.
(3 sem hrs; 2 lec, 4 lab) (POFI 1345, ITSC 2322)#

ITSC 2331: Advanced Word Processing
Prerequisite: POFI 2301 with a grade of C or higher or demonstrated competence
Continuation of the study of word processing including advanced application in merging, macros, graphics, desktop publishing, and extensive formatting for technical documents.
(3 sem hrs; 2 lec, 4 lab) (BUS 4523, OFAD 2303)#

PARALEGAL STUDIES
LGLA 1301: Legal Research and Writing
Prerequisites: ENGL 1301, POFI 2301, LGLA 1307, COSC 1301 or consent of department chair
This course provides a working knowledge of fundamentals of effective legal research and writing. Topics include law library techniques, computer assisted legal research, briefs, and legal memoranda.
(3 sem hrs; 2 lecture, 3 lab)

LGLA 1307: Introduction to Law and the Legal Professions
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331.
Corequisite: POFL 1305
This course provides an overview of the law and the legal professions. Topics include legal concepts, systems, and terminology; ethical obligations and regulations; professional trends and issues with particular emphasis on the paralegal.
(3 sem hrs; 3 lec)

LGLA 1309: Cognitive Skills for the Legal Profession
Prerequisites: LGLA 1345 and LGLA 2303
Corequisite: LGLA 1351 or RELE 1311
Training in creative, critical, and intuitive thinking in the legal environment; group dynamics and effective participation in work groups and teams; listen effectively and critically; formulate solutions to assigned problems; and read critically.
(3 sem hrs; 3 lec)

LGLA 1343: Bankruptcy
Prerequisite: LGLA 1307 or consent of department chair
This course presents fundamental concepts of bankruptcy law and procedure with emphasis on the paralegal’s role. Topics include individual and business liquidation and reorganization.
(3 sem hrs; 3 lec)

LGLA 1345: Civil Litigation
Prerequisites: LGLA 1307, COSC 1301 or consent of department chair
Corequisite: LGLA 2303
This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal’s role. Topics include pretrial, trial, and post trial phases of litigation.
(3 sem hrs; 3 lecture, 2 lab)
LGLA 1351: Contracts  
Prerequisite: LGLA 1307 or consent of department chair  
This course presents fundamental concepts of contract law with emphasis on the paralegal’s role. Topics include formation, performance, and enforcement of contracts under the common law and the Uniform Commercial Code. Additionally, this course presents basic concepts of business organizations with emphasis on the paralegal’s role. Topics include law of agency, sole proprietorships, forms of partnerships, corporations, and other emerging business entities.  
(3 sem hrs; 3 lec)  

LGLA 1353: Wills, Trusts and Probate Administration  
Prerequisites: LGLA 1307, COSC 1301 or consent of department chair  
Corequisite: LGLA 1355  
This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal’s role.  
(3 sem hrs; 3 lecture, 1 lab)  

LGLA 1355: Family Law  
Prerequisites: LGLA 1307, COSC 1301 or consent of department chair  
This course presents fundamental concepts of family law with emphasis on the paralegal’s role. Topics include formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship.  
(3 sem hrs; 3 lec)  

LGLA 2303: Torts and Personal Injury Law  
Prerequisite: LGLA 1307 or consent of department chair  
Corequisite: LGLA 1345  
This course presents fundamental concepts of tort law with emphasis on the paralegal’s role. Topics include intentional torts, negligence, and strict liability.  
(3 sem hrs; 3 lec)  

LGLA 2305: Interviewing and Investigating  
Prerequisite: LGLA 1307 or consent of department chair  
This course is a study of principles, methods, and investigative techniques utilized to locate, gather, document, and manage information. Emphasis on developing interviewing and investigative skills to prepare the paralegal to communicate effectively while recognizing ethical problems.  
(3 sem hrs; 3 lec)  

LGLA 2307: Law Office Management  
Prerequisite: LGLA 1307, POFI 2301 or consent of department chair  
This course presents the fundamentals of law office management and organization including basic principles and structure of management, administrative and substantive systems in the law office, and law practice technology.  
(3 sem hrs; 2 lec, 4 lab)  

LGLA 2313: Criminal Law and Procedure  
Prerequisite: LGLA 1307 or consent of department chair  
This course introduces the criminal justice system including procedures from arrest to final disposition, principles of federal and state law, and the preparation of pleadings and motions.  
(3 sem hrs; 3 lec)  

LGLA 2335: Advanced Civil Litigation  
Prerequisites: LGLA 1307, LGLA 1345, COSC 1301 or consent of department chair  
This course provides opportunities to implement advanced civil litigation techniques and builds upon skills acquired in prior civil litigation courses.  
(3 sem hrs; 2 lecture, 4 lab)  

LGLA 2266: Practicum - Paralegal/Legal Assistant  
Prerequisite: 21 hours of major courses or consent of department chair  
A basic or intermediate type of non-health professions work-based instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills and integrate knowledge. The emphasis is on practical work experience. Indirect supervision is provided by the work supervisor. A practicum may be a paid or unpaid learning experience.  
(2 sem hrs; 20 hrs work/week)  

LGLA 1366/2366: Practicum Specialty - Paralegal/Legal Assistant  
Prerequisite: 21 hours of major courses or consent of department chair  
A basic or intermediate type of non-health professions work-based instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills and integrate knowledge. The emphasis is on practical work experience. Indirect supervision is provided by the work supervisor. A practicum may be a paid or unpaid learning experience.  
(3 sem hrs; 30 hrs work/week)  

PHARMACY TECHNOLOGY  

PHRA 1301: Introduction to Pharmacy  
Examination of the qualifications, operational guidelines, and job duties of a pharmacy technician. Topics include definitions of a pharmacy environment, the role of a pharmacy technician, legal and ethical guidelines, job skills and duties, verbal and written communication skills, professional resources, safety techniques, and supply and inventory techniques.  
(3 sem hrs; 3 lec) (PHT 3003)#  

PHRA 1309: Pharmaceutical Mathematics I  
Prerequisite: Score of not less than 10 on the Amarillo College mathematics academic placement test  
Pharmaceutical mathematics including reading, interpreting, and solving calculation problems encountered in the preparation and distribution of drugs. Conversion of measurements within the apothecary, avoirdupois, and metric systems with emphasis on the metric system of weight and volume. Topics include ratio and proportion, percentage, dilution and concentration, milliequivalent, units, intravenous flow rates, and solving dosage problems.  
(3 sem hrs; 3 lec) (PHT 3103)#
PHRA 1345: Intravenous Admixture and Sterile Compounding
Prerequisites: PHRA 1301, PHRA 1309
Mastery of skills in compounding sterile products. Introduction to sterile products, handwashing techniques, pharmaceutical calculations, references, safety techniques, aseptic techniques in parenteral compounding, proper use of equipment (autoinjectors, pumps), preparation of sterile products (intravenous, irrigation, ophthalmic, total parenteral nutrition, and chemotherapy drugs), and safe handling of antineoplastic drugs.
(3 sem hrs; 2 lec, 2 lab) (PHT 3112)#

PHRA 1306: Computerized Drug Delivery Systems I
Prerequisites: PHRA 1301, PHRA 1309
Fundamentals of computer information systems and technology within the health care system. Includes specialized skill in the production of pharmaceutical documentation using selected pharmacy software packages.
(3 sem hrs; 2 lec, 2 lab) (PHT3203)#

PHRA 1404: Pharmacotherapy and Disease Process
Prerequisite/Corequisite: POFM 1313
A study of disease processes and the therapeutic properties of the drugs used in treatment.
(4 sem hrs) (PHT 3213)#

PHRA 1166: Practicum (or Field Experience) Pharmacy Technician/Assistant
Prerequisites: PHRA 1301, PHRA 1309, PHRA 1404 Corequisites: PHRA 1306, PHRA 1345
Practical, general workplace training supported by an individualized learning plan developed by the employer, college and student.
(1 sem hr; 10 clinic) (PHT 3302)#

PHILOSOPHY
PHIL 1301*: Introduction to Philosophy
Prerequisite: 20 semester hours or consent of instructor
Various branches of philosophy - the nature of goodness, freedom - and certain basic problems within each branch. Designed to introduce the student to philosophical thinking.
(3 sem hrs; 3 lec) (PHIL 4353)#

PHIL 1304*: Introduction to World Religions
History, doctrine, literature, and practices of major world religions such as Islam, Buddhism, Hinduism, Judaism, and Christianity.
(3 sem hrs; 3 lec) (RELG 4212)#

PHIL 2303*: Logic
Prerequisite: 20 semester hours or consent of instructor
Introductory study of recognition, analysis, criticism, and construction of the main types of argument and proof. Designed to help the student discriminate between right and wrong thinking.
(3 sem hrs; 3 lec) (PHIL 4363)#

PHIL 2306*: Introduction to Ethics
A study of traditional views of the good life and good society, with critical examination of theories of the nature of goodness, happiness, duty, freedom, etc.
(3 sem hrs; 3 lec) (PHIL 4373)#

PHOTOGRAPHY
PHTC 1335: Basic Camera Techniques
A non-darkroom course that explores how to operate and better utilize a conventional or digital camera. Introduction to the proper use of photographic equipment such as flash and tripod to enhance picture taking.
(3 sem hrs; 3 lec)

ARTS 2356*: Fundamentals of Photography I
Negative exposure and development, basic enlarging, composition, darkroom technique, flash exposure, and use of exposure meter and filters; elementary instruction.
(3 sem hrs; 2 lec, 3 lab)

ARTS 2357*: Fundamentals of Photography II
Prerequisite: ARTS 2356
Advanced exposure and printing techniques. Proper use of the Zone System, archival printing, toning, printing for maximum quality. Use of the 4 X 5 camera.
(3 sem hrs; 2 lec, 3 lab)

PHTC 1313: History of Photography
A historical survey of the technical and aesthetic development of photography. Topics include the beginnings of the medium, inventors, development of photographic equipment, styles of the creative masters, aesthetic themes, and the social impact of photography.
(3 sem hrs; 3 lec, 1 lab)

PHTC 1345: Illustrative Photography I
Prerequisite: ARTS 2356
Instruction in the technical aspects involved in commercial photography. Topics include lighting equipment, techniques of production photography, reproduction principles, illustrative techniques, and advertising.
(3 sem hrs; 2 lec, 3 lab)

PHTC 1346: Illustrative Photography II
Prerequisite: PHTC 1345
A continuation of the study of commercial photographic principles with an emphasis on enhancing technical and creative quality.
(3 sem hrs; 2 lec, 3 lab)

PHTC 1341: Color Photography I
Prerequisite: ARTS 2356
Examination of color theory as it applies to photography. Emphasis on color concepts and the intricacies of seeing and photographing in color.
(3 sem hrs; 2 lec, 3 lab)

PHTC 1342: Color Photography II
Prerequisite: PHTC 1341
Skill development in advanced color printing or slide production. Emphasis on use of specialized color techniques and applications.
(3 sem hrs; 2 lec, 3 lab)

PHTC 1353: Portraiture I
Prerequisite: ARTS 2356
A study of the photographic principles applied to portrait lighting, posing, printing, and subject rapport.
(3 sem hrs; 2 lec, 3 lab)
**PHTC 2353: Portraiture II**  
*Prerequisite: PHTC 1353*  
A continuation of the study of principles of effective portraiture with specific emphasis on unique presentation and environmental and location studies.  
(3 sem hrs; 2 lec, 3 lab)

**PHTC 1343: Expressive Photography**  
*Prerequisite: ARTS 2356 or consent of instructor*  
A study of formal, professional, and individual uses of photography by applying photographic technology to personalized needs. Emphasis on creative visual thinking and problem solving and the exploration of personal vision.  
(3 sem hrs; 2 lec, 3 lab)

**PHTC 1391: Special Topics in Commercial Photography**  
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.  
(3 sem hrs; 3 lec)

**PHTC 1306: Fashion Photography**  
An exploration of fashion photography in terms of trends and techniques included in studio and location work. Emphasis on model direction and lighting control.  
(3 sem hrs; 2 lec, 3 lab)

**PHTC 1347: Landscape Photography**  
*Prerequisite: ARTS 2356 or consent of instructor*  
Skill development in the inspection of the landscape visually and graphically utilizing various camera formats. Topics include exploration of historic, geographical, and cultural locations, and review of landscape photographers.  
(3 sem hrs; 1 lec, 5 lab)

**PHTC 1349: Photo Digital Imaging I**  
*Prerequisite: ARTS 2356 or consent of instructor*  
Instruction in the computer as an electronic darkroom. Topics include color and grayscale images and image conversion and presentation.  
(3 sem hrs; 2 lec, 3 lab)

**PHTC 2349: Photo Digital Imaging II**  
*Prerequisite: PHTC 1349 or consent of instructor*  
Continued skill development in the use of the computer for retouching, copying, photographic restoration, color correction, data importation, composite imaging, and background dropout and replacement.  
(3 sem hrs; 2 lec, 3 lab)

**PHTC 2343: Portfolio Development**  
*Prerequisite: Successful completion of 21 hours of Photography courses*  
A culmination experience for the evaluation of the student’s photographic competencies. Includes association with a professional photographic organization, skills in resume creation, review of portfolio, professional self-presentation, comprehensive testing, and seminars in areas of photographic interest.  
(3 sem hrs; 2 lec, 2 lab)

**PHTC 1166, 1266, 1366: Photo Practicum**  
*Prerequisite: Consent of instructor*  
Practical experience in the photographic workplace. Students must have already secured employment in a photographic business.  
(1 hr. credit per 10 hours of work)

**PHYSICAL EDUCATION**

**PHED 1271: Personal Trainer Precertification**  
*Corequisite: PHED 1123*  
Designed to prepare students to take the American Council of Exercise Aerobics Instructor (ACE) examination. The student will gain experience in personal training by assisting in the instruction of individualized self-paced fitness classes. Upon successful completion of this course the student will become a certified personal trainer.  
(2 sem hr; 2 lec, 1 lab) (PHYED 4352)\#

**PHED 1272: Aerobic Instructor Precertification**  
*Corequisite: PHED 1123*  
Designed to prepare students to take the American Council of Exercise Aerobics Instructor (ACE) examination. The student will gain experience in aerobic training by assisting in the instruction of individualized self-paced aerobic conditioning classes. Upon successful completion of this course the student will be ready to take the appropriate certification exam to become a certified aerobic instructor.  
(2 sem hr; 2 lec, 1 lab) (PHYED 4362)\#

**PHED 1301\#: Foundations of Physical Education**  
Designed primarily as a professional orientation in physical education. A study of history, philosophy, modern trends, teacher qualifications, vocational opportunities, competence, evaluation, and research. Does not replace PHED activity class.  
(3 sem hrs; 3 lec) (PHYED 3373)\#

**PHED 1304\#: Concepts of Healthful Living**  
Survey of major health concepts and issues. Designed to provide students with knowledge and methods that will enable them to make responsible choices for a healthy lifestyle. Does not replace PHED activity class.  
(3 sem hrs; 3 lec) (PHYED 3383)\#

**PHED 1306\#: Standard First Aid and CPR Training**  
Meets the requirements for certification by the American National Red Cross. Accident prevention, identification, and first aid for injury and illness. Also includes instruction in cardiopulmonary resuscitation and leads to a CPR certificate. Does not replace PHED activity class.  
(3 sem hrs; 3 lec) (PHYED 3363)\#
PHED 1331*: Essential Elements of Wellness for Elementary Children
Essential elements of wellness education for children aged five to ten, including a review of critical health knowledge, developmentally appropriate activities, fundamental motor skills, basic principles of motor learning and assessment, and various aspects of health instruction also included.
(3 sem hrs; 3 lec) (PHYED 4013)#

**ACTIVITY COURSES**

PHED 1101*: Lifetime Fitness
Promotes behavior that encourages students to make responsible choices for lifelong health and wellness through instruction and participation in moderate fitness activities.
(1 sem hr; 1 lec, 2 activity)

PHED 1102*: Aerobic Conditioning I
Emphasizes toning and firming of muscles and muscle groups through various aerobic activities.
(1 sem hr; 3 act) (PHYED 3371)#

PHED 1103*: Aerobic Dance I
Low impact aerobic dance including floor, step and slide aerobics. Toning exercises using hand weights, tubes, balls and rubber bands. Stretching exercises to improve flexibility.
(1 sem hr; 3 act)

PHED 1104*: Fitness Walking I
Walking for fitness - indoors and outdoors and/or using treadmills. Self-paced class where programs vary depending upon each individual’s fitness level
(1 sem hr; 3 act)

PHED 1105*: Studio Cycle Spinning
Indoor stationary cycling led by an instructor. Includes music and a variety of speed, load and cycling techniques.
(1 sem hr; 3 act)

PHED 1106*: Weight Loss Workout I
Variety of low level aerobic activities and instruction in nutrition. Designed specifically for individuals who desire to reduce body fat. Weight training is optional.
(1 sem hr; 3 act)

PHED 1107*: Outdoor Cycling I
Outdoor road race style cycling. Individual and group rides. Focus is fitness and fun. Non-competitive. Bicycles are not provided.
(1 sem hr; 3 act)

PHED 1108*: Tae-Box Aerobics
Workout program that includes a blend of self defense arts, dance, and boxing. Choreographed to music.
(1 sem hr; 3 act)

PHED 1109*: Trek Treadmill
A motivating group treadmill workout. Variations of treadmill training (hills, walking, running, intervals) led by an instructor. A fun and challenging workout.
(1 sem hr; 3 act)

PHED 1110*: Personal Training I
An enjoyable, safe, and effective exercise program that is individually prescribed to each student. The course is an excellent guide for students of all ages and fitness levels who are seeking a healthy exercise program. Individuals who have been reluctant to exercise because they’re not sure how to get started or who have been intimidated by the complex variety of exercise options will especially find this course appealing.
(1 sem hr; 3 act) (PHYED 3351)#

PHED 1111*: Swimming I
Lap swimming for fitness through a variety of lap pool workouts. Instruction in basic swimming skills for non-swimmers or elementary swimmers.
(1 sem hr; 3 act) (PHYED 3313)#

PHED 1112*: Aquatic Exercise I
Emphasizes toning and firming of muscles and muscle groups through the application of prescribed aquatic exercises. Swimming not required.
(1 sem hr; 3 act) (PHYED 3381)#

PHED 1113*: Weight Training and Conditioning I
Designed to teach the technique of physical conditioning through weight training and various types of exercise. Includes warm-up drills, conditioning exercises, and fundamental skills and techniques of weight training.
(1 sem hr; 3 act) (PHYED 3121)#

PHED 1114*: Free Weight Training I
Physical conditioning through weight training using free weight equipment.
(1 sem hr; 3 act)

PHED 1115*: Body Sculpting
Use of light hand weights to tone, tighten, and reduce. Concentrate on problem areas of the body like hips, legs, and abs.
(1 sem hr; 3 act)

PHED 1116*: Bowling I
Basic bowling techniques for the beginning bowler. Basic rules, history, and opportunity for league play.
(1 sem hr; 3 act) (PHYED 3161)#

PHED 1117*: Golf I
Instruction and practice in fundamental skills of golf. History, rules, safety, and opportunity to play on local golf course.
(1 sem hr; 3 act) (PHYED 3171)#

PHED 1118*: Tennis I
Fundamental skills of tennis for the beginning player. History, rules, player and tournament analysis also included.
(1 sem hr; 3 act) (PHYED 3231)#

PHED 1119*: Racquetball I
Instruction and practice in basic racquetball techniques, skills, rules, and game strategy.
(1 sem hr; 3 act) (PHYED 3291)#

PHED 1120*: Volleyball I
Instruction and practice in basic techniques in volleyball, with opportunity to practice in game situations.
(1 sem hr; 3 act) (PHYED 3011)#

*Texas Common Course Number

#Previous prefix and number
**PHED 1121**: Skiing I  
Basic snow skiing techniques for the beginning or inexperienced skier.  
(1 sem hr; 3 act) (PHYED 3191)#

**PHED 1122**: Recreational Basketball  
Informal, non-structured recreational basketball. Full court and/or half court play. Adaptive to all skill levels.  
(1 sem hr; 3 act)

**PHED 1123**: Pre-Certification Applications  
Corequisite: PHED 1271 or 1272  
Gaining practical experience as a Personal Trainer or Aerobic Instructor in a non-threatening learning environment. Practical "how to" instruction prior to experience.  
(1 sem hr; 3 act)

**PHED 1124**: Pre-certification Exercise Physiology  
Helps form a knowledge base in the areas of anatomy and kinesiology. Covers kinesiology, neuromuscular function, energy systems and their applications to exercise.  
(1 sem hr; 3 act)

**PHED 1125**: Certified Trainer Internship  
Prerequisite: PHED 1271 or 1272  
Internship at area fitness facilities applying personal trainer or aerobic dance instruction skills.  
(1 sem hr; 3 act)

**PHED 2102**: Aerobic Conditioning II  
Prerequisite: PHED 1102  
A continuation of the development of cardiorespiratory endurance begun in Aerobic Conditioning I.  
(1 sem hr; 3 act) (PHYED 4371)#

**PHED 2103**: Aerobic Dance II  
Prerequisite: PHED 1103  
A continuation of the development of cardiorespiratory endurance and dance skills begun in Aerobic Dance I.  
(1 sem hr; 3 act)

**PHED 2104**: Fitness Walking II  
Prerequisite: PHED 1104  
A continuation of the development of cardiorespiratory endurance through walking begun in Fitness Walking I.  
(1 sem hr; 3 act)

**PHED 2105**: Studio Cycle Spinning II  
Prerequisite: PHED 1105  
A continuation of the development of cardiorespiratory endurance through indoor cycling begun in Studio Cycle Spinning I.  
(1 sem hr; 3 act)

**PHED 2106**: Weight Loss Workout II  
Prerequisite: PHED 1106  
A continuation of the development of cardiorespiratory endurance and fat loss begun in Weight Loss Workout I.  
(1 sem hr; 3 act)

**PHED 2107**: Outdoor Cycling II  
Prerequisite: PHED 1107  
A continuation of the development of cardiorespiratory endurance and cycling skills through outdoor cycling begun in Outdoor Cycling I.  
(1 sem hr; 3 act)

**PHED 2108**: Tae-Box Aerobics II  
Prerequisite: PHED 1108  
Continuation of workout program that includes a blend of self-defense arts, dance and boxing. Choreographed to music. Also includes basic boxing moves, plyometric and aerobic conditioning to increase cardiovascular endurance and muscle tone.  
(1 sem hr; 3 act)

**PHED 2109**: Advanced Aerobic Dance  
Advanced moves, high intensity workout, for more fit individuals who want a challenge physically and mentally.  
(1 sem hr; 3 act)

**PHED 2110**: Personal Training II  
Prerequisite: PHED 1110  
Is a sound and flexible exercise program that is individually prescribed to each student. This course is a continuation of Personal Training I and is a guide for students of all ages and fitness levels who are seeking a healthy exercise program. Emphasis in this course will be placed upon the following: healthy eating plan, recommended caloric, protein, fat, and carbohydrate intake.  
(1 sem hr; 3 act) (PHYED 4351)#

**PHED 2111**: Swimming II  
Prerequisite: PHED 1112  
Variety of advanced lap swimming workouts for fitness. Continuation of Swimming I.  
(1 sem hr; 3 act) (PHYED 3141)#

**PHED 2112**: Aquatic Exercise II  
Prerequisite: PHED 1112  
Emphasizes toning and firming of muscles and muscle groups through the application of prescribed aquatic exercises. Swimming not required. Continuation of Aquatic Exercise I.  
(1 sem hr; 3 act)

**PHED 2113**: Weight Training and Conditioning II  
Prerequisite: PHED 1113  
Designed to develop the muscular and cardiovascular systems beyond the basic weight training and conditioning level.  
(1 sem hr; 3 act) (PHYED 4121)#

**PHED 2114**: Free Weight Training II  
Prerequisite: PHED 1114  
A continuation of muscle development through free weight training begun in PHED 1114.  
(1 sem hr; 3 act)

**PHED 2115**: Body Sculpting II  
Prerequisite: PHED 1115  
Continuing use of hand weights to tone, tighten and reduce.  
(1 sem hr; 3 act)

**PHED 2116**: Bowling II  
Prerequisite: PHED 1116  
Intermediate bowling techniques in league play situations. Continuation of Bowling I.  
(1 sem hr; 3 act) (PHYED 4161)#

---

*Texas Common Course Number  
#Previous prefix and number
PHED 2117*: Golf II  
*Prerequisite: PHED 1117  
Instruction in intermediate golfing techniques, history, rules, and safety. Opportunity to participate in different types of competition.  
(1 sem hr; 3 act)  (PHYED 4171)#

PHED 2118*: Tennis II  
*Prerequisite: PHED 1118  
Advanced phases of the fundamentals of tennis such as the return of the serve, approach shots, strategy, and the more technical rules of the game. Drills, tournaments, and films included.  
(1 sem hr; 3 act)  (PHYED 3241)#

PHED 2119*: Racquetball II  
*Prerequisite: PHED 1119  
For students who have satisfactorily completed PHED 1119 or have had previous racquetball experience.  
(1 sem hr; 3 act)  (PHYED 3301)#

PHED 2120*: Volleyball II  
*Prerequisite: PHED 1120  
Skills, rules, and advanced techniques in power volleyball with opportunity to practice in class tournaments. Continuation of Volleyball I.  
(1 sem hr; 3 act)  (PHYED 3021)#

PHED 2121*: Skiing II  
*Prerequisite: PHED 1121  
For the skier who wants to develop good parallel technique.  
(1 sem hr; 3 act)  (PHYED 3201)#

PHED 2127*: Advanced Golf  
*Designed for the advanced player. Emphasis on chipping, pitching, putting, fundamentals of the full-motion swing, course management and physical fitness.  
(1 sem hr; 3 act)

PHED 1133*: Country-Western Dance I  
Contemporary country-western dances (cowboy two-step, cotton-eyed Joe, schottische, rag, four-corners). Does not include square-dancing.  
(1 sem hr; 3 act)  (PHYED 3331)#

PHED 1134*: Country-Western Dance II  
*Prerequisite: PHED 1133  
Contemporary country-western dances (cowboy two-step, Cotton-Eyed Joe, Schottische, rag, four-corners). Continuation of Country-Western Dance I.  
(1 sem hr; 3 act)  (PHYED 4331)#

**PHYSICAL SCIENCE**

PHYS 1315*: Concepts of Physical Science I  
Fundamental concepts of the physical world. The philosophy of science, the physical universe, Newton's laws, energy, heat, electricity, magnetism. The structure of water, chemical principles, theory of molecular structure and organic and inorganic chemistry will be studied.  
(3 sem hrs; 3 lec)  (PHYS 3013)#

PHYS 2373: Integrated Earth Science  
Preparation for elementary and middle school teachers of science: to supplement science knowledge and increase confidence levels of science instruction. Hands-on activities, and survey of topics in earth systems, atoms, minerals, rocks, plate tectonics, volcanism, planets, and the universe. Interaction of systems will include the integration of the atmosphere, oceans, and earth resources.  
(3 sem hrs; 2 lec, 4 lab)  (PHYS 4033)#

**PHYSICAL THERAPIST ASSISTANT**

PTHA 1160: Clinical I  
*Corequisite: PTHA 1431  
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.  
(1 sem hr; 4 clinic)

PTHA 1229: Applied Physical Principles  
An experiential approach to the application of physical principles as related to patient treatment.  
(2 sem hrs; 2 lec)

PTHA 1267: Practicum I  
*Prerequisites: PTHA 1301, PTHA 1321, PTHA 1431, PTHA 1405  
Practical general workplace training supported by an individualized learning plan developed by the employer, college and student.  
(2 sem hrs; 14 clinic)  (PTA 4002)#

PTHA 1201: The Profession of Physical Therapy  
Introduction to the profession of physical therapy including the exploration of the historical and current scope of physical therapy.  
(3 sem hrs; 2 lec)

PTHA 1317: Issues in Health Care  
*Prerequisites: PTHA 1413, PTHA 2509  
Corequisites: PTHA 2367, PTHA 2435  
Exploration of the organizational patterns, administrative principles, legal and ethical issues, communications, and job placement skills in physical therapy and health care.  
(3 sem hrs; 3 lec)

PTHA 1321: Clinical Pathophysiology  
*Prerequisites: PTHA 1301, BIOL 2401, POFM 1313  
Corequisites: PTHA 1431, PTHA 1405, BIOL 2402  
A study of the pathogenesis, prognosis, and therapeutic management of diseases/conditions commonly encountered in physical therapy.  
(3 sem hrs; 3 lec)

PTHA 1405: Basic Patient Care Skills  
*Prerequisites: PTHA 1301, BIOL 2401, PTHA 1229, POFM 1313  
Corequisites: PTHA 1431, PTHA 1405, BIOL 2402  
Introduction to the theory and application of basic patient handling, functional skills, assessment techniques, data collection techniques.  
(4 sem hrs; 3 lec, 3 lab)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTHA 1413</td>
<td>Functional Anatomy</td>
<td>PTHA 1267</td>
<td>PTHA 2509</td>
</tr>
<tr>
<td></td>
<td>Study of human anatomy and its</td>
<td></td>
<td>Study of the biophysical principles,</td>
</tr>
<tr>
<td></td>
<td>application to the motion of the</td>
<td></td>
<td>assessment, and application of</td>
</tr>
<tr>
<td></td>
<td>musculoskeletal system as it</td>
<td></td>
<td>therapeutic physical agents with</td>
</tr>
<tr>
<td></td>
<td>relates to normal activities</td>
<td></td>
<td>specific emphasis on indications,</td>
</tr>
<tr>
<td></td>
<td>and dysfunctions. Integration of</td>
<td></td>
<td>contraindications, medical efficacy,</td>
</tr>
<tr>
<td></td>
<td>skills related to the kinesiolog-</td>
<td></td>
<td>and physiological effects.</td>
</tr>
<tr>
<td></td>
<td>ical assessment of the human</td>
<td></td>
<td>(4 sem hrs; 3 lec, 3 lab)</td>
</tr>
<tr>
<td></td>
<td>body.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTHA 1431</td>
<td>Physical Agents</td>
<td>PTHA 1301, BIOL 2401, SCIT 1320, POFM 1313</td>
<td>PTHA 1405, BIOL 2402</td>
</tr>
<tr>
<td></td>
<td>Study of the biophysical</td>
<td></td>
<td>Study of the biophysical principles,</td>
</tr>
<tr>
<td></td>
<td>principles, assessment, and</td>
<td></td>
<td>assessment, and application of</td>
</tr>
<tr>
<td></td>
<td>application of therapeutic physical</td>
<td></td>
<td>therapeutic physical agents with</td>
</tr>
<tr>
<td></td>
<td>agents with specific emphasis on</td>
<td></td>
<td>specific emphasis on indications,</td>
</tr>
<tr>
<td></td>
<td>indications, contraindications,</td>
<td></td>
<td>and physiological effects.</td>
</tr>
<tr>
<td></td>
<td>medical efficacy, and</td>
<td></td>
<td>(4 sem hrs; 3 lec, 4 lab)</td>
</tr>
<tr>
<td></td>
<td>physiological effects.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTHA 2160</td>
<td>Clinical II</td>
<td>PTHA 2509</td>
<td>PTHA 2367</td>
</tr>
<tr>
<td></td>
<td>A health-related work-based</td>
<td></td>
<td>Practical general workplace training</td>
</tr>
<tr>
<td></td>
<td>learning experience that enables</td>
<td></td>
<td>supported by an individualized learning</td>
</tr>
<tr>
<td></td>
<td>the student to apply specialized</td>
<td></td>
<td>plan developed by the employer, college</td>
</tr>
<tr>
<td></td>
<td>occupation theory, skills and</td>
<td></td>
<td>and student.</td>
</tr>
<tr>
<td></td>
<td>concepts. Direct supervision is</td>
<td></td>
<td>(1 sem hr; 4 clinic)</td>
</tr>
<tr>
<td></td>
<td>provided by the clinical</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>professional.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTHA 2205</td>
<td>Clinical Neurology</td>
<td>PTHA 1321</td>
<td>Study of neuroanatomy and neurotrans-</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: PTHA 1321</td>
<td></td>
<td>physiology as it relates to commonly</td>
</tr>
<tr>
<td></td>
<td>Study of neuroanatomy and nerve-</td>
<td></td>
<td>encountered neurological conditions.</td>
</tr>
<tr>
<td></td>
<td>ophysiology as it relates to</td>
<td></td>
<td>(2 sem hrs; 2 lec)</td>
</tr>
<tr>
<td></td>
<td>commonly encountered neurological</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>conditions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTHA 2301</td>
<td>Assessment Skills</td>
<td>PTHA 1267</td>
<td>Study of assessment techniques used in</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: PTHA 2435, PTHA 1317, PTHA 2367</td>
<td></td>
<td>physical therapy to prepare the</td>
</tr>
<tr>
<td></td>
<td>Study of assessment techniques</td>
<td></td>
<td>physical therapist assistant to assist</td>
</tr>
<tr>
<td></td>
<td>used in physical therapy</td>
<td></td>
<td>physical therapy management.</td>
</tr>
<tr>
<td></td>
<td>to prepare the physical therapist</td>
<td></td>
<td>(3 sem hrs; 2 lec, 3 lab)</td>
</tr>
<tr>
<td></td>
<td>assistant to assist physical</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>therapy management.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTHA 2367</td>
<td>Practicum II</td>
<td>PTHA 1267, PTHA 1413, PTHA 2509</td>
<td>Practical general workplace training</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: PTHA 1317, PTHA 2435, PTHA 2301</td>
<td></td>
<td>supported by an individualized learning</td>
</tr>
<tr>
<td></td>
<td>Practical general workplace</td>
<td></td>
<td>plan developed by the employer, college</td>
</tr>
<tr>
<td></td>
<td>training supported by an</td>
<td></td>
<td>and student.</td>
</tr>
<tr>
<td></td>
<td>individualized learning plan</td>
<td></td>
<td>(3 sem hrs; 25 clinic)</td>
</tr>
<tr>
<td></td>
<td>developed by the employer, college and student.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTHA 2435</td>
<td>Rehabilitation Technique</td>
<td>PTHA 1413, PTHA 2509</td>
<td>Advanced course integrating previously</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: PTHA 1413, PTHA 2509</td>
<td></td>
<td>learned and new skills/techniques into</td>
</tr>
<tr>
<td></td>
<td>Study of the comprehensive</td>
<td></td>
<td>the comprehensive rehabilitation of</td>
</tr>
<tr>
<td></td>
<td>rehabilitation of selected</td>
<td></td>
<td>selected long-term pathologies.</td>
</tr>
<tr>
<td></td>
<td>long-term pathologies.</td>
<td></td>
<td>(4 sem hrs; 3 lec, 3 lab)</td>
</tr>
<tr>
<td>PTHA 2509</td>
<td>Therapeutic Exercise</td>
<td>PTHA 1267</td>
<td>Critical examination of concepts and</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: PTHA 1267</td>
<td></td>
<td>application of techniques related to</td>
</tr>
<tr>
<td></td>
<td>Study of the comprehensive</td>
<td></td>
<td>therapeutic exercise and functional</td>
</tr>
<tr>
<td></td>
<td>rehabilitation of selected long-</td>
<td></td>
<td>training.</td>
</tr>
<tr>
<td></td>
<td>term pathologies.</td>
<td></td>
<td>(5 sem hrs; 3 lec, 4 lab)</td>
</tr>
</tbody>
</table>

**PHYSICS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1101</td>
<td>College Physics I Laboratory</td>
<td>PTHA 1301</td>
<td>PHYS 1305</td>
</tr>
<tr>
<td></td>
<td>Must be taken concurrently with Physics</td>
<td></td>
<td>Laboratory studies in mechanics,</td>
</tr>
<tr>
<td></td>
<td>1301. Selected classical physics</td>
<td></td>
<td>acceleration, force, and heat.</td>
</tr>
<tr>
<td></td>
<td>laboratory experiments, including problem solving seminars.</td>
<td></td>
<td>(1 sem hr; 4 lab) (PHYS 4221)#</td>
</tr>
<tr>
<td>PHYS 1102</td>
<td>College Physics II Laboratory</td>
<td>PTHA 1301</td>
<td>PHYS 1305</td>
</tr>
<tr>
<td></td>
<td>Must be taken concurrently with PHYS 1302. Selected classical physics laboratory experiments, including problem solving seminars.</td>
<td></td>
<td>(1 sem hr; 4 lab) (PHYS 4231)#</td>
</tr>
<tr>
<td>PHYS 1105</td>
<td>Introductory Physics I Laboratory</td>
<td>PTHA 1301</td>
<td>PHYS 1305</td>
</tr>
<tr>
<td></td>
<td>Study of classical physics.</td>
<td></td>
<td>Laboratory studies in mechanics,</td>
</tr>
<tr>
<td></td>
<td>Continuation of Physics 1301. Fundamen-</td>
<td></td>
<td>acceleration, force, and heat.</td>
</tr>
<tr>
<td></td>
<td>tals of classical physics.</td>
<td></td>
<td>(1 sem hr; 4 lab) (PHYS 4223)#</td>
</tr>
<tr>
<td>PHYS 1105</td>
<td>Introductory Physics I</td>
<td>PTHA 1301</td>
<td>PHYS 1305</td>
</tr>
<tr>
<td></td>
<td>Study of classical physics.</td>
<td></td>
<td>Laboratory studies in mechanics,</td>
</tr>
<tr>
<td></td>
<td>Introduction to physics for students</td>
<td></td>
<td>acceleration, force, and heat.</td>
</tr>
<tr>
<td></td>
<td>who have limited backgrounds in</td>
<td></td>
<td>(3 sem hrs; 3 lec) (PHYS 4223)#</td>
</tr>
<tr>
<td></td>
<td>science and mathematics. For non-scien-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>t majors. Topics include mechanics,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>properties of matter, heat, and thermody-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>namics.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3 sem hrs; 3 lec) (PHYS 4223)#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 1375</td>
<td>Integrated Physics I</td>
<td>PTHA 1301</td>
<td>PHYS 1305</td>
</tr>
<tr>
<td></td>
<td>Study of classical physics.</td>
<td></td>
<td>Laboratory studies in mechanics,</td>
</tr>
<tr>
<td></td>
<td>Continuation of Physics 1301. Fundamen-</td>
<td></td>
<td>acceleration, force, and heat.</td>
</tr>
<tr>
<td></td>
<td>tals of classical physics.</td>
<td></td>
<td>(1 sem hr; 4 lab) (PHYS 4223)#</td>
</tr>
<tr>
<td>PHYS 1375</td>
<td>Integrated Physics I</td>
<td>PTHA 1301</td>
<td>PHYS 1305</td>
</tr>
<tr>
<td></td>
<td>Study of classical physics.</td>
<td></td>
<td>Laboratory studies in mechanics,</td>
</tr>
<tr>
<td></td>
<td>Continuation of Physics 1301. Fundamen-</td>
<td></td>
<td>acceleration, force, and heat.</td>
</tr>
<tr>
<td></td>
<td>tals of classical physics.</td>
<td></td>
<td>(1 sem hr; 4 lab) (PHYS 4223)#</td>
</tr>
<tr>
<td>PHYS 2279</td>
<td>Academic Cooperative in Physics</td>
<td>Consent of instructor</td>
<td>Integrates on-campus study with practical hands-on work experience in Physics. The individual student will set specific goals and objectives in the study of mechanics, waves, processes of matter and energy and associated phenomena.</td>
</tr>
<tr>
<td>PHYS 2389</td>
<td>Academic Cooperative in Physics</td>
<td>Consent of instructor</td>
<td>Integrates on-campus study with practical hands-on work experience in Physics. The individual student will set specific goals and objectives in the study of mechanics, waves, processes of matter and energy and associated phenomena.</td>
</tr>
</tbody>
</table>

*Texas Common Course Number

#Previous prefix and number
PHYS 2425*: Principles of Physics I  
Prerequisite: MATH 2413  
Students without adequate high school physics should take PHYS 1301 prior to this course. General survey of physics; laws of motion, heat, and wave phenomena.  
(4 sem hrs; 3 lec, 4 lab) (PHYS 3314)#

PHYS 2426*: Principles of Physics II  
Prerequisites: PHYS 2425, MATH 2414  
Optics, electricity and magnetism.  
(4 sem hrs; 3 lec, 4 lab) (PHYS 4324)#

PSYCHOLOGY  
PSYC 1171: Educational and Career Planning  
Give specific help to individuals needing to make career and/or educational decisions. Examine values, interests, aptitudes, the decision making process, and learn how to set realistic goals as they apply to their career, personal and educational alternatives. Appraisal of job supply and demand and latest techniques for acquiring job included.  
(1 sem hr; 1 lec) (PSYCH 3021)#

PSYC 2301*: General Psychology  
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331  
An introduction to psychology covering the principles of human behavior relating to heredity, maturation, intelligence, learning, motivation, perception, emotions and personality.  
(3 sem hrs; 3 lec) (PSYCH 3113)#

PSYC 2302*: Psychology of Human Relations  
Learn and use human relations skills related to the self, others, work settings, and the home; psychological orientation.  
(3 sem hrs; 3 lec) (PSYCH 3023)#

PSYC 2308*: Child Psychology  
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331  
The basic concepts of human growth and development with reference to physical, cognitive, social and personality changes in the life of the child.  
(3 sem hrs; 3 lec) (PSYCH 4153)#

PSYC 2314*: Life-Span Developmental Psychology  
Prerequisite: PSYC 2301  
The development of human physical, mental, emotional and social characteristics from infancy through maturity, the life span.  
(3 sem hrs; 3 lec) (PSYCH 4193)#

PSYC 2315*: Human Behavior and Personal Adjustment  
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331  
Applications of basic psychological principles to human adjustment and growth, including psychosocial development, self-concept, stress and coping, social influence, interpersonal relationships, love, intimacy, and the prevention of maladjustment.  
(3 sem hrs; 3 lec)

PSYC 2319*: Social Psychology  
Prerequisite: PSYC 2301  
Study and analysis of human conduct in relation to social situations. Survey of experimental work and current problems.  
(3 sem hrs; 3 lec) (PSYCH 4143)#  
Note: Students completing PSYC 2319 cannot earn credit for SOCI 2326.

PSYC 2340*: Psychology Seminar  
Prerequisite: PSYC 2301  
An elective course designed to deal with specific topics in psychology.  
(3 sem hrs; 3 lec) (PSYCH 4203)#

RADIATION THERAPY  
RADT 1142: Quality Assurance in Radiation Therapy  
Prerequisite: RADT 1205 or consent of instructor  
Theory and application of various instruments used in the direction and analysis of therapeutic ionizing radiation with special emphasis on procedures that provide consistency, uniformity and quality within the department.  
(1 sem hr; 1 lec, 1 lab)

RADT 1205: Technical Procedures I  
Prerequisite: RADT 1205 or consent of instructor  
Skill development in therapeutic practices relating to the field of radiation therapy with emphasis on basic patient set-up treatment techniques and port film evaluation.  
(2 sem hrs: 1 lec, 3 lab)

RADT 1246: Technical Procedures II  
Prerequisite: RADT 1205 or consent of instructor  
Continued skill development in therapeutic practices relating to the field of radiation therapy, with emphasis on intermediate patient set-up treatment techniques and an introduction to simulation procedures.  
(2 sem hrs; 1 lec, 3 lab)

RADT 1266: Practicum I  
Prerequisite: Acceptance into the program  
A method of instruction providing detailed education, training and work-based experience and direct patient care generally at a clinic site. Students perform related duties in the clinical setting under direct supervision. Practical application of the basic principles of radiation therapy.  
(2 sem hrs; 15 clinic)

RADT 1271: Technology Research  
Prerequisite: Advanced standing in the program or consent of instructor  
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.  
(2 sem hrs; 1 lec, 4 lab)
RADT 1401: Introduction to Radiation Therapy  
*Prerequisite: Acceptance into the program*  
Introduction to the field of radiation therapy with emphasis on the principles of terminology, and history, as well as an orientation to clinical practices and oncological practices.  
(4 sem hrs; 3 lec, 3 lab)

RADT 2266: Practicum III  
*Prerequisite: RADT 1267*  
A method of instruction providing detailed education, training and work-based experience and direct patient care generally at a clinic site. Students perform related duties in the clinical setting under direct supervision. Practical application of the basic principles of radiation therapy.  
(2 sem hrs; 19 clinic)

RADT 2271: Technical Procedures III  
*Prerequisite: RADT 1246 or consent of instructor*  
Continued skill development in therapeutic practices relating to the field of radiation therapy with special emphasis on advanced treatment planning with relation to simulation procedures and equipment operation.  
(2 sem hrs; 1 lec, 3 lab)

RADT 2367: Practicum IV  
*Prerequisite: RADT 2266*  
A method of instruction providing detailed education, training and work-based experience and direct patient care generally at a clinic site. Students perform related duties in the clinical setting under direct supervision. Practical application of the basic principles of radiation therapy. Clinical experiences are unpaid learning experiences.  
(3 sem hrs; 22 clinic)

RADT 2366: Practicum V  
*Prerequisite: RADT 2367*  
A method of instruction providing detailed education, training and work-based experience and direct patient care generally at a clinic site. Students perform related duties in the clinical setting under direct supervision. Practical application of the basic principles of radiation therapy.  
(3 sem hrs; 22 clinic)

RADT 2401: Oncology I  
*Prerequisite: RADT 1401 or advanced standing*  
Fundamentals of radiation oncology. A study of malignant conditions, their etiology, treatment, and prognosis, psychosocial effect of the disease and specific nursing skills dealing with cancer patients.  
(4 sem hrs; 4 lec)

RADT 2403: Oncology II  
*Prerequisite: RADT 1401 or advanced standing*  
The course includes the historical development of radiography, basic radiation protection, and introduction to medical terminology, ethical and legal issues for health care professionals, and an orientation to the program and the health care system.  
(4 sem hrs; 2 lec)

RADT 2407: Dosimetry I  
*Prerequisite: Advanced standing in the program or or consent of instructor*  
The principles, aims, and techniques of applying ionizing radiation to the human body are discussed. The physical aspects and properties of ionizing radiation are presented in this course.  
(4 sem hrs; 4 lec)

RADT 2409: Dosimetry II  
*Prerequisite: Advanced standing in the program or or consent of instructor*  
A continuation of Dosimetry I, this course presents the principles, aims and techniques of applying ionizing radiation to the human body. Topics include discussions of applications of radiotherapy equipment with emphasis on treatment planning and dose calculation. The physical aspects and properties of ionizing radiation are discussed.  
(4 sem hrs; 4 lec)

**RADIOGRAPHY**

RADR 1166: Practicum III  
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study.  
(1 sem hr; 10 clinic)

RADR 1266: Practicum I  
Corequisite: RADR 1411 or consent of department chair  
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technology course of study.  
(2 sem hrs; 2 lec)

RADR 1267: Practicum II  
*Prerequisite: RADR 1266*  
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study.  
(2 sem hrs; 17 clinic)

RADR 1303: Patient Care  
*Prerequisite: POFM 1313*  
A course in patient assessment, infection control procedures, emergency and safety procedures, communication and patient interaction skills, and basic pharmacology.  
(3 sem hrs; 3 lec)
RADR 1313: Principles of Radiographic Imaging I  
Prerequisite: RADR 2313  
This course will analyze radiographic image qualities and the effects of exposure variables upon these qualities.  
(3 sem hrs; 2 lec, 3 lab)

RADR 1317: Radiographic Anatomy and Physiology I  
This course develops the student's ability to relate basic human anatomy and physiology to the image. The localization and identification of human anatomy on the radiographic image is emphasized.  
(3 sem hrs; 3 lec)

RADR 1318: Radiographic Anatomy and Physiology II  
Prerequisite: RADR 1317  
The course develops the student's ability to relate basic human anatomy and physiology to the image. The localization and identification of human anatomy and the radiographic image is emphasized.  
(3 sem hrs; 3 lec)

RADR 1411: Basic Radiographic Procedures  
This course includes an introduction to radiographic positioning terminology, the proper manipulation of equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of basic anatomy and the radiographic image is emphasized.  
(4 sem hrs; 3 lec, 3 lab)

RADR 2217: Radiographic Pathology  
Prerequisite: RADR 2401  
An overview of the disease process and common diseases and their appearance on medical images.  
(2 sem hrs; 2 lec)

RADR 2235: Radiologic Technology Seminar  
Prerequisites: RADR 2305, RADR 2309  
This is a capstone course focusing on the synthesis of professional knowledge, skills and attitudes in preparation for professional employment and lifelong learning.  
(2 sem hrs; 2 lec)

RADR 2266: Practicum VI  
Prerequisite: RADR 2367  
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study.  
(3 sem hrs; 25 clinic)

RADR 2270: Principles of Radiologic Science  
Prerequisite: RADR 2313  
An in-depth discussion and exploration of the fundamentals principles of physics as they apply to the science of radiology. Includes a study of matter and energy, electricity, magnetism, electromagnetism, motors and generators, current rectification, production and control of high voltage and solid electronic devices used in imaging equipment.  
(3 sem hrs; 3 lec)

RADR 2401: Intermediate Radiographic Procedures  
Prerequisite: RADR 1411  
A continuation of the study of the proper manipulation of radiographic equipment, positioning and alignment of the anatomical structure and equipment, evaluation of images for proper demonstration of intermediate anatomy and related pathology.  
(4 sem hrs; 3 lec, 3 lab)

DMSO 1266: Practicum I  
Prerequisite: RADR 2266  
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study.  
(2 sem hrs; 20 clinic)
DMSO 1267: Practicum II
Prerequisite: DMSO 1266
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study.
(2 sem hrs; 20 clinic)

DMSO 1166: Practicum III
Prerequisite: DMSO 1267
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study.
(1 sem hr; 10 clinic)

RADIO-TV

COMM 1307*: Introduction to Mass Communication
Survey of communication field; history, purpose, methods of operation; interrelations among media forms, individual, and society.
(3 sem hrs; 3 lec) (MCOM 3103)#

COMM 1335*: Survey of Electronic Media
Broadcast/cable station organization; functions of various departments; history and development of industry, FCC, networks, ratings, government regulation, self-regulation, programming, and public-interest concept. Study of new technology.
(3 sem hrs; 3 lec) (MCOM 4203)#

COMM 1336*: Introduction to Radio-TV Production
Operation of studio and control room equipment for radio and television production; Experience on production crew for programs and commercials. Understanding of visual elements of the electronic media.
(3 sem hrs; 2 lec, 4 lab) (RADTV 3203)#

COMM 1337*: Television Production
Prerequisite: COMM 1336
Production techniques, theory of lighting, non-linear/digital and videotape editing, and field camera operation.
(3 sem hrs; 2 lec, 2 lab) (RADTV 3203)#

COMM 2220*: Television Workshop
Prerequisite: Consent of instructor
Laboratory experience in television production by producing program material for use on the college television station, college cable channel and/or special project.
(2 sem hrs; 4 lab) (MCOM 4502)#

COMM 2303*: Radio Production I
Prerequisite: COMM 1336
Participation in on-air board shift on KACV-FM; production techniques, formats, styles and remote equipment operation.
(3 sem hrs; 2 lec, 2 lab) (RADTV 3403)#

COMM 2324*: Electronic Media Workshop
Work with college radio station, PBS television station, cable channel or commercial media outlet. Individual research or project with faculty supervision.
(3 sem hrs; 6 lab) (MCOM 4483)#

COMM 2326*: Media Internship
Prerequisite: Consent of instructor
Internship arranged with a media outlet; student will work at radio or television station, magazine, newspaper or advertising agency with faculty supervision.
(3 sem hrs; 6 hrs work/week) (MCOM 4602)#

COMM 2327*: Introduction to Advertising
Theories, principles, and functions of advertising; role in marketing strategy; specific requirements of all media forms; campaigns and role of advertising agency.
(3 sem hrs; 3 lec) (MCOM 3403)#

COMM 2331*: Announcing for Radio-Television
Techniques of radio-television announcer; voice development, articulation/diction, and phonetics; interviewing techniques and experience in announcing all types of material.
(3 sem hrs; 3 lec) (MCOM 3303)#

COMM 2332*: Broadcast News
Gather, edit, present, and analyze news for broadcast stations; to examine news department organization and philosophy. Presentation of regularly scheduled newscast on KACV-FM and/or development of television package news stories.
(3 sem hrs; 3 lec, 2 lab) (MCOM 4603)#

COMM 2339: Writing for Electronic Media
Writing techniques for radio and television commercials, public service announcements, promos, and other broadcast and film materials. Emphasis on the format and style of each type of writing.
(3 sem hrs; 2 lec, 2 lab) (RADTV 4803)#

RTVB 1150: Radio Experience I
Prerequisite: COMM 2303 or consent of instructor
Laboratory experience in radio operation and announcing by broadcasting on the college radio station, KACV-FM.
(1 sem hr; 1 lec, 2 lab) (RADTV 4601)#

RTVB 2164, 2264, 2364: Practicum - Radio and Television Broadcasting
Practical experience in the media workplace. Students must secure employment in a media facility in order to enroll.
(1 hr credit per 10 hrs work/week) (RADTV 5301, 5401, 5302)#

RTVB 1391: Special Topics in Radio and Television Broadcasting
Special topics in the field of radio and television including an in-depth examination of contemporary trends. Topics may include the areas of programming, sales, production, engineering, promotion, news, non-traditional revenue and other topics.
(3 sem hrs; 3 lec)

RTVB 1447: Audio/Radio Production II
Prerequisite: COMM 2303
Participation in on-air board shift on KACV-FM; advanced production techniques; functions, responsibilities of program director; formatting techniques and development of playlists and clocks.
(4 sem hrs; 1 lec, 6 lab) (RADTV 4603)#
RTVB 2250: Radio Experience II
Prerequisite: COMM 2303 or consent of instructor
Advanced laboratory experience in radio operation and announcing by broadcasting on the college radio station, KACV-FM.
(2 sem hr, 1 lec, 4 lab) (RADTV 4602)#

RTVB 2337: Television Production Workshop I
Prerequisite: COMM 1337
Planning and producing television programs and commercials emphasizing the directing and producing responsibilities. Practical experience in producing programs.
(3 sem hrs; 1 lec, 4 lab) (RADTV 4303)#

RTVB 2339: Broadcast Sales
Instruction in sales methods, audience measurement, demographics, station promotion, non-traditional revenue and public relations for broadcast stations.
(3 sem hrs; 3 lec)

IMED 1351: Digital Video
Prerequisite: COMM 1337 or consent of instructor
Non-linear editing techniques and principles. Capturing video, editing, and outputting of video.
(3 sem hrs; 2 lec, 4 lab)

IMED 2341: Advanced Digital Video
Prerequisite: IMED 1351 or consent of instructor
Advanced non-linear editing techniques and principles.
(3 sem hrs; 1 lec, 5 lab)

READING

RDNG 0301: Basic Reading Skills
Prerequisite: THEA reading score below 170 or equivalent score on a state-approved test
Improve vocabulary and ability to understand written material. Exit test required for satisfactory completion. Preparatory for RDNG 0321. (Does not satisfy graduation requirements.)
(3 sem hrs; 3 lec, 2 lab) (RDNG 0113)#

RDNG 0321: Reading Techniques I
Prerequisite: THEA reading score of 170-200 or equivalent score on a state-approved test or a grade of C or higher in RDNG 0301
Improve vocabulary, word analysis skills, and reading comprehension. Exit test required for satisfactory completion. (Does not satisfy graduation requirements.)
(3 sem hrs; 3 lec, 2 lab) (RDNG 0123)#

RDNG 0331: Reading Techniques II
Prerequisite: THEA reading scores of 201-229 or equivalent score on a state-approved test or a grade of C or higher in RDNG 0321
Improve reading proficiency, reading speed, comprehension, vocabulary, and general study skills. Develop skills necessary for reading college-level textbooks. Exit test required for satisfactory completion. (Does not satisfy graduation requirements.)
(3 sem hrs; 3 lec, 2 lab) (RDNG 0133)#

RDNG 0101: Basic Phonics and Spelling
Develop word attack skills, pronunciation, and spelling. Preparatory for RDNG 0102, Phonics and Spelling. (Does not satisfy graduation requirements.)
(1 sem hr; 1 lec) (RDNG 0211)#

RDNG 0102: Phonics and Spelling
Improve word attack skills, pronunciation and spelling. (Does not satisfy graduation requirements.)
(1 sem hr; 1 lec) (RDNG 0221)#

RDNG 0103: Strategies for Learning
Improve study systems, including time management, effective listening, note taking, outlining texts, concentration, retention of information, and taking examinations.
(1 sem hr; 1 lec) (RDNG 0511)#

RDNG 0312: Basic Communication Skills
Prerequisite: Consent of ACcess advisor
Build basic skills of writing, speaking and reading with emphasis on writing. Practical exercises in English grammar, conversation, and vocabulary to develop the student's ability to communicate in the everyday world. Preparatory for ENGL 0313 and ENGL 0323. (Does not satisfy graduation requirements.)
(3 sem hrs; 3 lec) (RDNG 0413)#

RDNG 2311: Fundamentals of Reading Instruction
Basic principles in both learning to read and in teaching reading.
(3 sem hrs; 3 lec) (RDNG 4613)#

REAL ESTATE

BNKG 1353: Mortgage Lending
Shall include but not be limited to an overview of the mortgage lending market and process. Emphasis on documentation, credit evaluation, federal regulation, and state laws related to mortgage loans.
(3 sem hrs; 3 lec) (RE 4413)#

RELE 1191: Special Topics in Real Estate - Seminar for Real Estate Assistants
Shall include but not be limited to basic information for compiling a market analysis, completing paperwork arising from listings and sales, and following up on buyer and seller contacts. Designed for persons entering real estate as an unlicensed assistant or as a capstone for a newly licensed agent.
(1 sem hr; 1 lec) (RE 4501)#

RELE 1211: Real Estate Contracts
Shall include but not be limited to the elements of a contract, offer and acceptance; the statute of frauds, specific performance and remedies for breach; unauthorized practice of law; Commission rules relating to use of adopted forms; and other disclosure requirements.
(2 sem hrs; 2 lec)

RELE 1223: Real Estate Computer Application
Shall include but not be limited to a study of the availability of technology, especially software, and its ability to help a real estate agent become more productive. Hands-on applications of the most common real estate software packages. Designed for persons entering real estate as an unlicensed assistant or as a capstone for a newly licensed agent.
(2 sem hr; 1 lec, 2 lab) (RE 4511)#
RELE 1303: Real Estate Appraisal
Shall include but not be limited to a study of the central purposes and functions of an appraisal, social and economic determinants of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting.
(3 sem hrs; 3 lec) (RE 4313)#

RELE 1307: Real Estate Investment
Shall include but not be limited to financing, evaluation, and management of real estate investment. Emphasizes real estate investment characteristics, techniques of investment analysis, time-valued money, discounted investment criteria, leverage, and applications to property tax implications of owning real estate.
(3 sem hrs; 3 lec) (RE 4343)#

RELE 1309: Real Estate Law
Shall include but not be limited to legal concepts of real estate, land description, real property rights, estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of title.
(3 sem hrs; 3 lec) (RE 3323)#

RELE 1311: Real Estate Contracts
Shall include but not be limited to the elements of a contract, offer and acceptance; the statute of frauds, specific performance and remedies for breach; unauthorized practice of law; Commission rules relating to use of adopted forms; and other disclosure requirements.
(3 sem hrs; 3 lec) (RE 4323)#

RELE 1315: Property Management
Shall include but not be limited to the role of the property manager, landlord policies, operational guidelines, leases, lease negotiations, tenant relations, maintenance, reports, habitability laws, and the Fair Housing Act.
(3 sem hrs; 3 lec) (RE 4333)#

RELE 1219: Real Estate Finance
An overview of monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative financial instruments, equal credit opportunity laws affecting mortgage lending, and the state housing agency.
(2 sem hrs; 2 lec)
NOTE: Students completing RELE 1219 cannot earn credit for RELE 1319.

RELE 1319: Real Estate Finance
Shall acquaint the student with an overview of the U.S. monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative instruments, laws affecting mortgage lending, and State Housing Agency.
(3 sem hrs; 3 lec) (RE 4353)#
NOTE: Students completing RELE 1319 cannot earn credit for RELE 1219.

RELE 1321: Real Estate Marketing
Shall include but not be limited to real estate professionalism and ethics, characteristics of successful salespersons, time management, psychology of marketing, listing procedures, advertising, negotiating and closing, financing, and the Deceptive Trade Practices Act, Consumer Protection Act, and commercial code.
(3 sem hrs; 3 lec) (RE 4373)#

RELE 1325: Real Estate Mathematics
Shall include but not be limited to mathematical logic and basic arithmetic skills including percentages, interest, time-valued money, depreciation, amortization, proration, and estimation of closing statement.
(3 sem hrs; 3 lec) (RE 3333)#

RELE 1201: Real Estate Principles I
Overview of licensing as a real estate broker or salesperson. Includes ethics of practice as a license holder, titles to and conveyance of real estate, legal descriptions, deeds, encumbrances and liens, distinctions between personal and real property, appraisal, finance and regulations, closing procedures, and real estate mathematics. Covers at least three hours of classroom instruction on federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. Fulfills at least 30 of 60 hours of required instruction for salesperson license and a preview of Principles II.
(2 sem hrs; 2 lec)
NOTE: Students completing RELE 1201 cannot earn credit for RELE 1406

RELE 2209: Real Estate Principles II
Overview of licensing as a real estate broker or salesperson. Includes ethics of practice as a license holder, titles to and conveyance of real estate, legal descriptions, deeds, encumbrances and liens, distinctions between personal and real property, appraisal, finance and regulations, closing procedures, and real estate mathematics. Covers at least three hours of classroom instruction on federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment and a review of Principles I. Fulfills at least 30 of 60 hours of required instruction for salesperson license.
(2 sem hrs; 2 lec)
NOTE: Students completing RELE 2209 cannot earn credit for RELE 1406

RELE 1406: Principles of Real Estate
Shall include but not be limited to an overview of licensing as a real estate broker and salesperson, ethics of practice, titles to and conveyances of real estate, legal descriptions, law of agency, deeds, encumbrances and liens, distinctions between personal and real property, contracts, appraisal, finance and regulations, closing procedures, and real estate mathematics. Also includes federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment.
(4 sem hrs; 4 lec) (REAL 1301)#
NOTE: Students completing RELE 1201 and/or RELE 2209 cannot earn credit for RELE 1406
RELE 2201: Law of Agency
Shall include but not be limited to a study of law of agency including the principal-agent and master-servant relationships, the authority of an agent, the termination of an agent’s authority, the fiduciary and other duties of an agent, employment law, deceptive trade practices, listing or buying procedures, and the disclosure of agency.
(2 sem hrs; 2 lec)

RELE 2301: Law of Agency
Shall include but not be limited to a study of law of agency including the principal-agent and master-servant relationships, the authority of an agent, the termination of an agent’s authority, the fiduciary and other duties of an agent, employment law, deceptive trade practices, listing or buying procedures, and the disclosure of agency.
(3 sem hrs; 3 lec) (RE 3343)#

RELE 2305: Real Estate Inspections
Shall include but not be limited to a study of the different types of building systems and materials used in the design and construction of real property. Covers residential construction and commercial building systems and materials. Includes different structural building systems with emphasis on wood-related products, concrete and concrete masonry, brick, stone, and steel units. The Texas Real Estate Commission promulgate Property Condition Addendum will be addressed along with inspector and client agreements, tools and procedures, and electro-mechanical systems.
(3 sem hrs; 3 lec) (RE 4393)#

RELE 2307: Real Estate Title and Settlement
Shall include but not be limited to the procedural aspects required to research land titles, establish and administer title closing, escrow, determination of settlement requirements, and filing.
(3 sem hrs; 3 lec) (RE 4433)#

RELE 2331: Real Estate Brokerage
Shall include but not be limited to a study of law of agency, planning and organization, operational policies and procedures, recruiting, selection and training of personnel, records and control, and real estate firm analysis and expansion criteria.
(3 sem hrs; 3 lec) (RE 4383)#

RELE 1266/2266: Practicum - Real Estate
A basic or intermediate type of non-health professions work-based instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills and integrate knowledge. The emphasis is on practical work experience. Indirect supervision is provided by the work supervisor. A practicum may be a paid or unpaid learning experience.
(2 sem hrs: 20 hrs work/week)

RELE 1366/2366: Practicum - Real Estate
A basic or intermediate type of non-health professions work-based instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills and integrate knowledge. The emphasis is on practical work experience. Indirect supervision is provided by the work supervisor. A practicum may be a paid or unpaid learning experience.
(3 sem hrs: 30 hrs work/week)

RELIGION
PHIL 1304*: Introduction to World Religions
A survey of the history, doctrine, literature, and practices of major world religions such as Islam, Buddhism, Hinduism, Judaism, and Christianity.
(3 sem hrs; 3 lec) (RELG 4212)#

RELG 1101: Biblical Teaching on Marriage and Family
A survey of the basic teachings of the Bible on marriage and the family with the applications of these principles to present-day situations.
(1 sem hr; 1 lec) (RELG 3111)#

RELG 1102: Gospel of John
A study of the writings of St. John and the applicability of them to today’s world.
(1 sem hr; 1 lec) (RELG 3121)#

RELG 1103: The General Epistles
A study of the historical background, purpose, text and present application of the Epistles of James, Peter and Jude.
(1 sem hr; 1 lec.) (RELG 3151)#

RELG 1201: Church History - First Century
(2 sem hrs; 2 lec) (RELG 3212)#

RELG 1202: Christian Ethics
A study of the ethical principles of the Bible as they relate to marriage, family, race relations, economic life, and political life.
(2 sem hrs; 2 lec) (RELG 3222)#

RELG 1203: Hebrews
A study of the contrast of the Mosaic Law and Christianity with emphasis on the author, date, destination, and background.
(2 sem hrs; 2 lec) (RELG 3232)#

RELG 1301: The Old Testament
A survey of the Old Testament. An outline of Hebrew history including the books of poetry and prophecy in their proper historical settings.
(3 sem hrs; 3 lec) (RELG 3313)#

RELG 1302: The New Testament
(3 sem hrs; 3 lec) (RELG 3323)#

RELG 1303: The Prophets
A survey of the principal teachings of the Old Testament prophets, their influence on their people, and their significance for today.
(3 sem hrs; 3 lec) (RELG 3393)#

RELG 2301: Life of Christ
The life of Jesus Christ as presented in the four gospel accounts along with the principal tenets of His teaching chronologically harmonized and integrated.
(3 sem hrs; 3 lec) (RELG 4113)#

*Texas Common Course Number
#Previous prefix and number
RELG 2302: Life of Paul
The life of the apostle Paul drawn from the book of Acts and his epistles along with an exposition of his teachings as related to contemporary living.
(3 sem hrs; 3 lec) (RELG 4123)"

RELG 2303: Romans
An intensive study of Paul's letter to the Romans with emphasis upon the historical setting, its place in the canon, and the major doctrinal teachings.
(3 sem hrs; 3 lec) (RELG 4222)"

RELG 2304: Revelation
(3 sem hrs; 3 lec) (RELG 4163)"

RESPIRATORY CARE
RSPT 1101: Introduction of Respiratory Care
An introduction to the field of respiratory care. Topics include the history of respiratory care, hospital organization, medical malpractice, ethics, vital sings, body mechanics, basic cardiopulmonary assessment, infection control, and cardiopulmonary resuscitation (CPR).
(1 sem hr; 1 lec, 2 lab)

RSPT 1266: Practicum I Respiratory Therapy Technician
Prerequisites: RSPT 1410
Practical, general workplace training supported by an individualized plan developed by the employer, college and student.
(2 sem hr; 14 clinic)

RSPT 1167: Practicum II Respiratory Therapy Technician
Prerequisites: RSPT 2305, RSPT 1411, RSPT 1266
Practical, general workplace training supported by an individualized plan developed by the employer, college and student.
(1 sem hr; 8 clinic)

RSPT 1307: Cardiopulmonary Anatomy and Physiology
An introduction to the anatomy and physiology of the cardiovascular and pulmonary systems.
(3 sem hrs; 3 lec)

RSPT 1317: Respiratory Care Pharmacology
A study of pharmacological principles/practices of drugs which affect the cardiopulmonary systems. Emphasis on classification, route of administration, dosages/calculations, and physiological interactions.
(3 sem hrs; 3 lec)

RSPT 1340: Advanced Cardiopulmonary Anatomy and Physiology
Provides an advanced presentation of anatomy and physiology of the cardiovascular and pulmonary system.
(3 sem hrs; 3 lec)

RSPT 1391: Special Topics in Respiratory Care
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.
(3 sem hrs; 3 lec)
RSPT 2305: Pulmonary Diagnostics
The theories and techniques involved in pulmonary function testing diagnostics with emphasis on blood gas theory and analysis, quality control, oximetry, and capnography.
(3 sem hrs; 2 lec, 3 lab)

RSPT 2310: Cardiopulmonary Disease
A discussion of pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary disease.
(3 sem hrs; 3 lec)

RSPT 2314: Mechanical Ventilation
Prerequisite: RSPT 1167
Preparation to conduct the therapeutic procedures to achieve adequate, spontaneous, and artificial ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. Also included are the indications, complications, and physiological effects/principles of mechanical ventilation.
(3 sem hrs; 2 lec, 2 lab)

RSPT 2353: Neonatal/Pediatric Cardiopulmonary Care
A study of acute care, monitoring, and management as applied to the neonatal and pediatric patient.
(3 sem hrs; 3 lec)

RSPT 2358: Advanced Respiratory Care Patient Assessment
Instruction in the integration of patient examination techniques, clinical lab studies, x-ray, pulmonary function, arterial blood gases, and invasive and non-invasive hemodynamics results in patient assessment.
(3 sem hrs; 3 lec)

ROBOTICS (SEE INSTRUMENT AND CONTROL TECHNOLOGY)

SAFETY AND ENVIRONMENTAL TECHNOLOGY
AGCR 2319: Fertilizer and Soil Fertility
Study of the chemistry, soil interaction, and plant utilization of essential plant nutrients. Topics include deficiency and toxicity symptoms and the selection, application rates, and characteristics of materials used to provide nutrients.
(3 sem hrs; 3 lec)

AGCR 2301: Agricultural Chemicals
Instruction in the identification, biology and integrated management of pests affecting crops, livestock, and buildings. Emphasis on classification, chemistry, environmental impact, and safe application of chemical pesticides.
(3 sem hrs; 2 lec, 2 lab)

AGME 1308: Agricultural Parts and Products I
Instruction in agricultural equipment and consumer products used in agribusiness.
(3 sem hrs; 2 lec, 2 lab)

EPCT 1191: Special Topics in Environmental and Pollution Control Technology/Technician
Advanced topics of current interest in the environmental health industry not covered by the existing courses.
(1 sem hrs; 1 lec)

EPCT 1266: Practicum
Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study. The guided external experiences may be for pay or no pay.
(2 sem hrs; 20 clinic)

EPCT 1307: Introduction to Environmental Safety and Health
A historic overview of environmental safety and health. Emphasis is on the use of occupational safety and health codes.
(3 sem hrs; 3 lec) (EHT 3013)#

EPCT 1311: Introduction to Environmental Science
An overview of environmental science and current global concerns, and a brief history of environmental ethics, resource use, and conservation. Discussion of fundamental principles of resource economics and environmental health.
(3 sem hrs; 3 lec).

EPCT 1313: Contingency Planning
An introduction to the development of an emergency response contingency plan for a facility or community. Emphasis on analyzing the hazards, writing and implementing the contingency plans, and evaluating the effectiveness of the contingency plan.
(3 sem hrs; 2 lec, 2 lab) (EHT 4023)#

EPCT 1317: Environmental Geology
A study of the relationships between earth science and the environment. Emphasizes crustal geological influences on air, water, and soil focusing on the effects on human habitation. Identifies issues in flood plain management; demonstrates basic knowledge of earthquake and volcanology; and describes the relationship to climatology.
(3 sem hrs; 3 lec)

EPCT 1340: Industrial Chemical Process
An overview of chemical processes used in the chemical industry.
(3 sem hrs; 2 lec, 2 lab) (EHT 4043)#

EPCT 1344: Environmental Sampling and Analysis
Sampling protocol, procedures, quality control, preservation technology, and field analysis. Emphasis on analysis commonly performed by the field technician.
(3 sem hrs; 2 lec, 2 lab) (EHT 4013)#

EPCT 1401: Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics
Prerequisites: EPCT 1307, EPCT 1344
Minimum certification requirements of a hazardous waste site worker as found in 29CFR-1910.120 and 40CFR.264 and 265.16.
(4 sem hrs; 3 lec, 2 lab) (EHT 4073)#

EPCT 2333: Environmental Toxicology
Prerequisite: BIOL 2401
A review of the research determining the systematic health effects of exposure to chemicals. Discussion of risk factors, routes of entry, control measures, and acute and chronic effects.
(3 sem hrs; 2 lec, 2 lab) (EHT 4063)#
EPCT 2388, 2389: Internship-Environmental and Pollution Control Technology/Technician
An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience.
(3 sem hrs; 1 lec, 16 hrs work/week) (EHT 5213, EHT 5223)

EPCT 1305: Environmental Regulation Interpretation and Applications
Prerequisite/Corequisite: OSHT 2401
An introduction to the history of the environmental movement, including basic requirements for compliance with the environmental regulations.
(3 sem hrs; 2 lec, 2 lab) (HMT 4033)

EPCT 1343: Treatment, Remediation, and Disposal Techniques
A study of the skills required in treatment, remediation, and disposal processes of solid waste, hazardous materials, and hazardous waste. Emphasizes the technologies applicable in the field.
(3 sem hrs; 2 lec, 2 lab) (HMT 4033)

OSHT 1191: Special Topics - Occupational Safety
Overview of topical, current issues which pertain to the trucking industry. Deals with safety and health issues concerning trucking employees, employers, and the overall industry environment.
(1 sem hr; 1 lec)

OSHT 1405: OSHA Regulations - Construction Industry
A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to the construction industry.
(4 sem hrs; 3 lec, 2 lab) (HMT 4023)

OSHT 2401: OSHA Regulations - General Industry
A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to general industry.
(4 sem hrs; 3 lec, 2 lab) (HMT 3023)

OSHT 2372: Health Physics I
Reviews mathematics and introduces the basic concepts of atomic and nuclear structure, radioactive decay, and ionizing radiation.
(3 sem hrs; 2 lec, 2 lab) (HPT 3003)

OSHT 2373: Health Physics II
Prerequisite/Corequisite: OSHT 2372
Internal and external dosimetry, shields, radiation detection, and environmental monitoring.
(3 sem hrs; 2 lec, 2 lab) (HPT 3013)

OSHT 2374: Instruments and Measurements
Course covers the identification and quantifying of radioactive materials. Extensive training in the use of single and multichannel analyzers in alpha beta, and gamma identification and quantification is provided. Basic instrumentation usage, limitation, and effectiveness is covered.
(3 sem hrs; 2 lec, 2 lab) (HPT 4023)

OSHT 2376: Management of Radioactive Materials and Radiation Generating Devices
Federal and state regulations relating to the handling and disposal of radioactive materials and radiation generating devices.
(3 sem hrs; 3 lec) (HPT 4003)

EPCT 1341: Principles of Industrial Hygiene
Basic Concepts in threshold limits, dose response, and general recognition of occupational hazards, including sampling statistics, calibration, and equipment use. A study of the control of occupational hazards; and sample collection and evaluation methods.
(3 sem hrs; 2 lec, 2 lab)

EPCT 2331: Industrial Hygiene Applications
Prerequisite/Corequisite: EPCT 1341
A study of the industrial environment and its relation to worker’s health. This course provides training in anticipation, recognition, evaluation, and controlling health hazards particularly chemical, physical, biological, and ergonomic factors existing in the workplace and having injurious effects on workers. The course also introduces training in instrumentation used in monitoring and measuring health hazards in the workplace and covers current issues in industrial hygiene.
(3 sem hrs; 2 lec, 2 lab) (IHT 3013)

SCIT 1302: Subsurface Hydrology I
Prerequisite/Corequisite: EPCT 1317: Environmental Geology
A study of the geologic controls which govern the distribution and movement of subsurface waters including fluid-rock interaction and basic fluid flow. Explains hydrogen bonding in water and water surface tension; describe weathering/erosion processes; define Bernoulli-equation terms and transmissibility coefficient; and specify water well specific capacity.
(3 sem hrs; 3 lec)

SOCILOGY
SOCI 1301*: Introduction to Sociology
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331
Introductory study of sociology with special emphasis on social groups, institutions, interaction and change.
(3 sem hrs; 3 lec) (SOCIO 4373)

SOCI 1306*: Modern Social Problems
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331
A study of the nature and origin of the problems of modern society.
(3 sem hrs; 3 lec) (SOCIO 4383)

SOCI 1371: Sociology of Death and Dying
Course examines the customs, taboos, and historical changes relating to American funeral rites. In addition, the following topics are covered: the role of family structure, social class, religion, ethnicity, health care and technological changes.
(3 sem hrs; 3 lec) (SOCIO 3113)
SOCI 2301*: Marriage and the Family
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331
A study of the family as a social institution, changing in organization, function, and roles in response to technical-industrial development.
(3 sem hrs; 3 lec) (Socio 4153)#

SOCI 2319*: Minority Studies
Prerequisite: Scores on a state-approved test indicating college-level reading skills or a C or higher in RDNG 0331
Course provides a sociological analysis of American racial and ethnic groups. Focus on conceptual tools of analysis, background information of various groups, demographics, intergroup relations, policy and trends.
(3 sem hrs; 3 lec) (SOCIO 4113)#

SOCI 2326*: Social Psychology
Prerequisite: PSYC 2301
Study and analysis of human conduct in relation to social situations.
(3 sem hrs; 3 lec) (SOCIO4143)#

NOTE: Students completing SOCI 2326 cannot earn credit for PSYC 2319.

SOCW 2361*: Introduction to Social Work
Development of the philosophy and practice of social work in the United States; survey of the fields and techniques of social work; attention given to requirements for graduate training and social work.
(3 sem hrs; 3 lec) (SOCIO 4223)#

SPANISH
SPAN 1311: Introduction to Spanish I
Primary emphasis on fundamental skills in listening comprehension and speaking. Minimal emphasis on reading and writing skills. Includes basic vocabulary, culture, and an introduction to basic grammatical structures in the most commonly used tenses. Not designed to substitute for SPAN 1411.
(3 sem hrs; 2 lec, 2 lab)

SPAN 1312: Introduction to Spanish II
Prerequisite: SPAN 1311 or appropriate score on language placement test
Continuation of SPAN 1311. Not designed to substitute for SPAN 1412.
(3 sem hrs; 2 lec, 2 lab)

SPAN 1411*: First-year Spanish I
Prerequisite: An acceptable score on state mandated or locally administered English placement test.
Grammar, conversation, composition, dictation, and reading.
(4 sem hrs; 5 lec, 1 lab) (SPAN 3014)#

SPAN 1412*: First-year Spanish II
Prerequisite: SPAN 1411 or appropriate score on language placement test
Continuation of SPAN 1411.
(4 sem hrs; 5 lec, 1 lab) (SPAN 3024)#

SPAN 2311*: Second-year Spanish I
Prerequisite: SPAN 1412 or appropriate score on language placement test
Grammar review, conversation, composition, and study of selections from representative authors.
(3 sem hrs; 3 lec, 1 lab) (SPAN 4013)#

SPAN 2312*: Second-year Spanish II
Prerequisite: SPAN 2311 or appropriate score on language placement test
Continuation of SPAN 2311.
(3 sem hrs; 3 lec, 1 lab) (SPAN 4023)#

SPEECH COMMUNICATION
SPCH 1171: College Success Techniques
Practical study designed to acquaint the student with college life; aid the student in acquiring skills needed for academic success; promote student development and personal growth; and encourage the student's acceptance of responsibility and involvement in the learning process.
(1 sem hr; 1 lec) (SPCOM 3111)#

SPCH 1144*, 1145*, 2144*, 2145*: Intercollegiate Forensics
Prepare for or participate in intercollegiate debate, speaking and interpretation events. Advanced instruction and extensive practice sessions for each student.
(1 sem hr each; 3 lab) (SPCOM 3031, 3041, 4031, 4041)#

SPCH 1315*: Public Speaking
A basic course which acquaints students with principles of successful public speaking; provides activities which lead to the development of good speaking, listening, and organizational skills. Gives students opportunities to analyze speaker effectiveness.
(3 sem hrs; 3 lec) (SPCOM 3203)#

SPCH 1318*: Interpersonal Communication
Theory and practice in one-to-one and small group communication with emphasis on the development and improvement of verbal and non-verbal skills.
(3 sem hrs; 3 lec) (SPCOM 3103)#

SPCH 1321*: Business and Professional Speaking
Theory and practice of speech communication as applied to business and professional situations with emphasis on oral reports, informative and persuasive/sales presentations, interviewing, and organizational communication.
(3 sem hrs; 3 lec) (SPCOM 3303)

SPCH 1342*: Voice and Diction
A study of the speech mechanism with emphasis upon improvement of voice and diction; introduction to phonetics and study of proper production of individual speech sounds; student performance and instructor critiques.
(3 sem hrs; 3 lec) (SPCOM 3403)#

SPCH 2341*: Oral Interpretation
Techniques of interpretative readings as well as voice production and oral readings of literature, requiring oral presentation by students.
(3 sem hrs; 3 lec) (SPCOM 3503)#

SUBSTANCE ABUSE COUNSELING
DAAC 1304: Pharmacology of Addiction
Psychological, physiological, and sociological effects of mood altering substances and behaviors and their implications for the addiction process are discussed. Emphasis is placed on pharmacological effects of tolerance, dependency/withdrawal, cross addiction, and drug interaction.
(3 sem hrs; 3 lec) (SAC 3133)#
DAAC 1307: Addicted Family Intervention
An introduction to the family as a dynamic system focusing on the effects of addiction pertaining to family roles, rules, and behavior patterns. Discuss the impact of mood altering substances and behaviors and therapeutic alternatives as they relate to the family from a multicultural and transgenerational perspective.
(3 sem hrs; 3 lec) (SAC 4223)# (SAC 4213)

DAAC 1311: Counseling Theories
An introduction to major theories of various treatment modalities including Reality therapy, Psycho-dynamic, grief therapy, Client-centered therapy, Rational-Emotive Therapy, cognitive-behavioral approaches such as life skills training, behavior modification, and the introduction to experiential therapies as they relate to detoxification, residential, outpatient, and extended treatment.
(3 sem hrs; 3 lec) (SAC 3113, 3153)#

DAAC 1314: Dynamics of Group Counseling
An introduction to the patterns and dynamics of group interactions across the life span. Focus includes group therapy, structure, types, stages, development, leadership, therapeutic factors, the impact of groups on the individual, group growth, and behavior. Effective group facilitation skills and techniques used to address special population issues and needs are covered. Effective case management and record keeping are addressed.
(3 sem hrs; 3 lec) (SAC 3143)#

DAAC 1317: Basic Counseling Skills
Course is designed to facilitate development of the basic communication skills necessary to develop an effective helping relationship with clients. Includes the utilization of special skills to assist individuals, families, or groups in achieving objectives through exploration of a problem and its ramifications; examination of attitudes and feelings; considering of alternative solutions; and decision making.
(3 sem hrs; 3 lec) (SAC 3143)#

DAAC 1319: Introduction to Alcohol and Other Drug Addictions
Causes and consequences of addiction as they relate to the individual, family, community, and society are discussed. Response alternatives regarding intervention, treatment, education, and prevention are reviewed. Competencies and requirements for licensure in Texas are explained. Addiction issues related to diverse populations are presented.
(3 sem hrs; 3 lec)

DAAC 1341: Counseling Alcohol and Other Drug Addictions
Prerequisites: DAAC 1314, DAAC 1317
Course will focus on special skills and techniques in the application of counseling skills for the Alcohol and Other Drug (AOD) client. Design and utilization of treatment planning using a treatment team approach will be introduced. Confidentiality and ethical issues will be reviewed and practiced.
(3 sem hrs; 3 lec)

DAAC 1343: Current Issues
Prerequisite: DAAC 1304
Study of issues that impact addiction counseling. Special populations, dual diagnosis, ethics, gambling, and infectious diseases associated with addiction counseling will be investigated.
(3 sem hr; 3 lec) (SAC 4203)#

DAAC 1391: Special Topics in Alcohol/Drug Abuse Counseling
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.
(3 sem hrs; 3 lec)

DAAC 2266: Practicum I
Prerequisites: Completion of six DAAC courses inclusive of DAAC 1304, DAAC 1314, DAAC 1317, DAAC 1343
Intermediate practical training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid.
(2 sem hrs; 16 hrs work/week) (SAC 4253)#

DAAC 2267: Practicum II
Prerequisite: DAAC 2267
Advanced practical training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid.
(2 sem hrs; 16 hrs work/week) (SAC 4263)#

SURGICAL TECHNOLOGY
SRGT 1261: Clinical I
Prerequisites/Corequisites: SRGT 1405, SRGT 1409
The method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences.
(2 sem hrs; 8 clinic)

SRGT 1405: Introduction to Surgical Technology
Prerequisite: Admission to Surgical Technology program
Orientation to surgical technology theory, surgical pharmacology and anesthesia, technology sciences, and patient care concepts.
(4 sem hrs; 3 lec, 4 lab)

SRGT 1409: Fundamentals of Aseptic Technique
Prerequisite/Corequisite: BIOL 2401
In-depth coverage of perioperative concepts such as aseptic principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field.
(4 sem hrs; 3 lec, 4 lab)

SRGT 1441: Surgical Procedures I
Prerequisites/Corequisites: SRGT 1261, BIOL 2402
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.
(4 sem hrs; 3 lec, 4 lab)
SRGT 1442: Surgical Procedures II  
*Prerequisite: SRGT 1441 or consent of department chair*  
Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the thoracic, peripheral vascular, plastic/reconstructive, ENT, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care.  
(4 sem hrs; 4 lec)

SRGT 2360: Clinical III  
*Prerequisites/Corequisites: SRGT 2461, SRGT 1442, or consent of department chair*  
Method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences.  
(3 sem hrs; 17 clinic)

SRGT 2461: Clinical II  
*Prerequisites/Corequisites: SRGT 1261, BIOL 2402*  
A method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences.  
(4 sem hrs; 24 clinic)

THEATRE

DRAM 1120*, 1121*, 2120*, 2121*: Theatre Practicum  
Practicum in theatre with emphasis on technique and procedures with experience gained in play productions.  
(1 sem hr; 4 lab) (THA 3111, 3121, 4111, 4121)#

DRAM 1310*: Introduction to Theatre  
Examines various elements of theatre; brief history with introduction to theatre plant and activities, augmented by textbook study of stage terminology and introduction to organization of production procedure.  
(3 sem hrs; 3 lec) (THA 3313)#

DRAM 1322*: Stage Movement  
Principles, practices, and exercises in body techniques and stage movement; improvisation as it applies to acting theory; emphasis on character movement and body control.  
(3 sem hrs; 3 lec) (THA 3343)#

DRAM 1330*: Stagecraft I  
Study and application of visual aesthetics which may include the physical theatre, scenery construction and painting, lighting and stage management.  
(3 sem hrs; 2 lec, 3 lab) (THA 4312)#

DRAM 1341*: Stage Make-up  
Examine and practice theory of stage make-up covering straight, corrective, and character. Fee for use of make-up.  
(3 sem hrs; 2 lec, 2 lab) (THA 3232)#

DRAM 1342*: Introduction to Costume  
Study and application of costume construction, which may include basic sewing, patternning and period/styles. Students will also learn the principles and techniques for theatrical costume design.  
(3 sem hrs; 3 lec)

DRAM 1351*: Acting I  
Fundamental acting techniques with emphasis on developing scenes from plays, and on developing ensemble performance and actor’s responsibilities to other actors, to the play, to the director and production staff, and to the audience. Classroom exercises to explore and discover the actor’s own inner resources.  
(3 sem hrs; 3 lec) (THA 3323)#

DRAM 1352*: Acting II  
*Prerequisite: DRAM 1351*  
Actually creating a role with practice in sustaining the character; study and utilize theories of Konstantin Stanislavski on basics of character preparation.  
(3 sem hrs; 3 lec) (THA 4333)#

DRAM 2331*: Stagecraft II  
*Prerequisite: DRAM 1330*  
Additional emphasis and study of costume design, stage management, lighting and sound design; application of aesthetic and technical theories and practice of stage design and effects.  
(3 sem hrs; 2 lec, 3 lab)

DRAM 2361*: Theatre History, Greeks to 16th Century  
*Prerequisite: DRAM 1310*  
A survey of the birth and early development of Western theatre from its roots in ritual through the Renaissance and Shakespeare.  
(3 sem hrs; 3 lec) (THA 4343)#

DRAM 2362*: Theatre History, 17th to 19th Century  
*Prerequisite: DRAM 1310*  
A survey of theatre theory, practice, and literature in Europe, England and the United States from the early to mid 18th century until 1915, with special emphasis on the social, political, aesthetic and technological factors leading to the development of the modern Western theatre.  
(3 sem hrs; 3 lec) (THA 4353)#

DRAM 2366: American Cinema  
An introductory course in film studies which surveys the American film industry as an art form, a business and a means of communication. Extensive screenings and analysis of representative films from various genres. An examination of how Hollywood films work technically, artistically and culturally.  
(3 sem hrs; 3 lec) (PHOTO 4153)#

TRAVEL AND TOURISM

TRVM 1101: Customer Sales and Service  
Practical information and techniques to create excellent customer sales and service unique to the travel public.  
(1 sem hr; 1 lec) (TRAV 3103)#

---

*Texas Common Course Number  
#Previous prefix and number
TRVM 1300: Introduction to Travel and Tourism
An overview of the travel industry. Emphasis on travel careers and the impact of tourism on society.
(3 sem hrs; 3 lec) (TRAV 3103) *

TRVM 1308: Travel Destination I - Western Hemisphere
Study of countries located in the Western Hemisphere including Canada, United States, Latin America, South America, Mexico and the Caribbean Islands. Emphasis on the culture, customs, climate, physical features, language, currency, tourist and seasonal attractions.
(3 sem hrs; 3 lec) (TRAV 3203) *

TRVM 1341: Travel Destination II - Eastern Hemisphere
Study of countries located in the Eastern Hemisphere including Europe, Asia, Africa, Middle East, Commonwealth of Independent States, Australia, and New Zealand. Emphasis on the culture, customs, climate, physical features, language, currency, tourist and specific seasonal attractions.
(3 sem hrs; 3 lec) (TRAV 3203) *

TRVM 1313: Ticketing Forms and Procedures
Prerequisite: TRVM 1300
An introduction to non-automated airline, tour company, and travel agency operations. The student will study basic city airport and airline codes, airline reservations and how they relate to computer formats and available websites. The student will define ticketing procedures, fare basis, taxes and rules as regulated by the Airlines Reporting Corporation.
(3 sem hrs; 3 lec)

TRVM 1406: Travel Automation I
Prerequisites: TRVM 1300
An introduction to computer training using one of the major computer reservation systems for the travel industry.
(4 sem hrs; 2 lec, 6 lab) (TRAV 4103, TRVM 1349) *

TRVM 2435: Travel Automation II
Prerequisites: TRVM 1300
Computer training on a major computer reservation system utilized in the travel industry. The student will create Passenger Name Records, select airline schedules and inventory from availability, learn air, car and hotel reservation entries in an assimilated computerized format.
(4 sem hrs; 3 lec, 2 lab) (TRAV 4203, TRVM 2437) *

TRVM 1331: Introduction to Hospitality Industry
An exploration of the hospitality/lodging industry with emphasis on its history and development with relationships between hotel-lodging and suppliers. Explains the elements of the hospitality industry including food and beverage, housing, reservations, and convention services. Defines the responsibilities of key executives and interprets a hotel organizational chart.
(3 sem hrs; 3 lec) (HAMG 1321) *

TRVM 2302: Travel Career Development
Prerequisites: TRVM 1300, TRVM 1308 or TRVM 1341, TRVM 1406 or TRVM 2435
Apply knowledge of the travel industry environment in sales, marketing and operations. Emphasis will be placed on the travel industry components and functions, the distribution of travel products, and addressing the consumer needs in the market place. Offers the student a field observation opportunity in the travel industry.
(3 sem hrs; 3 lec, 1 lab) (TRAV 4332, TRAV 4342, TRVM 2377) *

TRVM 1380: Cooperative Education - Travel and Tourism
Career-related activities encountered in the student's area of specialization are offered through an individual 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 lecture component.
(3 sem hrs; 1 lec, 20 hrs work/week) (BMGT 1382/1383) *

WELDING TECHNOLOGY

DFTG 1425: Blueprint Reading and Sketching
An introduction to reading and interpreting working drawings for fabrication processes and associated trades. Use of sketching techniques to create pictorial and multiple-view drawings.
(4 sem hrs, 2 lec, 4 lab)

WLDG 1327: Welding Codes
An in-depth study of welding codes and their development in accordance with structural standards, welding processes, destructive and nondestructive test methods.
(3 sem hrs, 2 lec, 2 lab)

WLDG 1407: Introduction to Welding Using Multiple Processes
An overview of the basic welding processes, including oxyfuel welding and cutting, shielded metal arc (SMAW), gas metal arc (GMAW), and gas tungsten arc welding (GTAW).
(4 sem hrs, 2 lec, 4 lab)

WLDG 1417: Introduction to Layout and Fabrication
A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.
(4 sem hrs, 2 lec, 6 lab)

WLDG 1428: Introduction to Shielded Metal Arc Welding (SMAW)
An introduction to shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxyfuel cutting, and various joint designs. Instruction provided in SMAW fillet welds in various positions.
(4 sem hrs, 2 lec, 6 lab)

WLDG 1457: Intermediate Shielded Metal Arc Welding (SMAW)
Prerequisite: WLDG 1428
A study of the production of various fillets and groove welds. Preparation of specimens for testing in all test positions.
(4 sem hrs, 2 lec, 6 lab)

WLDG 1491: Special Topics in Welder/Welding Technologist
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.
(4 sem hrs, 2 lec, 6 lab)
WLDG 2406: Intermediate Pipe Welding
Prerequisite: WLDG 1457
A comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) process. Position of welds will be 1G, 2G, 5G, and 6G using various electrodes. Topics covered include electrode selection, equipment set-up, and safe shop practices.
(4 sem hrs, 2 lec, 6 lab)

WLDG 2439: Advanced Oxy-Fuel Welding and Cutting
A study of all position welding on ferrous and nonferrous metals using oxy-fuel welding process, including welding and cutting, brazing, and soldering operations.
(4 sem hrs, 2 lec, 6 lab)

WLDG 2447: Advanced Gas Metal Arc Welding (GMAW) (MIG)
Prerequisite: WLDG 1457
Advanced topics in GMAW welding, including welding in various positions and directions.
(4 sem hrs, 2 lec, 6 lab)

WLDG 2451: Advanced Gas Tungsten Arc Welding (GTAW) (TIG)
Prerequisite: WLDG 2439
Advanced topics in GTAW welding, including welding in various positions and directions.
(4 sem hrs, 2 lec, 6 lab)

WLDG 2480: Cooperative Education – Welding Technology/Welder
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.
(4 sem hrs, 1 lec, 20 lab)
Faculty & Administrators

Donald Abel ................................................. Assistant Professor, Speech/Radio-TV
B.A., Stephen F. Austin State University
M.A., Scarritt College
M.A., West Texas A&M University

Frances Abernathy ........................................... Coordinator, Employment Services
Associate Professor,
Advising and Counseling Center
A.A., Western Oklahoma State College
B.A., Oklahoma State University
M.A., New Mexico State University

Larry G. Adams ........................................... Assistant Professor, Social Sciences
B.S., West Texas State University
J.D., University of Texas Law School

M’Linda R. Adams ............................................. Director/Instructor
Community College Teacher Center
B.S., Texas A&M University, Kingsville
M.Ed., West Texas A&M University

Douglas O. Adcock ............................................ Instructor/Program Coordinator
Emergency Medical Services Professions
B.S., West Texas A&M State University

Angela Davis Allen ........................................... Academic Advisor/
Associate Professor, Special Services
B.S., Texas Tech University
M.A., West Texas A&M University

Neil R. Allen ............................................. Associate Vocational Professor, Respiratory Care
A.A.S., Amanilo College
B.A., West Texas State University

Jason C. Altieri ............................................. Director/Instructor, Mortuary Science
B.S., University of Central Oklahoma
M.S., Southern Nazarene University
Texas Licensed FD/Emb

Frank Amon ............................................. Assistant Professor, Electronic Systems Technology
B.S.E.T., M.S.O.T., University of Houston

Jay C. Anders ............................................. Instructor, Welding Manufacturing Technology
B.G.S., West Texas State University

Robert Austin ............................................. Associate Dean of Student Services
B.S., M.Ed., Eastern New Mexico University

Deborah Bailey ............................................. Instructor, Legal Studies Coordinator
B.B.E., West Texas State University

A. LaVon Barrett ............................................. Instructor, Vocational Nursing
B.S.N., Texas Christian University
Registered Nurse (Texas)

Robert E. Banks ............................................. Chairman/Professor,
Substance Abuse Counseling
B.A., Georgia State University
M.Ed., University of Georgia
Ph.D., University of Tennessee

James A. Bauchert ............................................. Coordinator/Continuing Education,
Moore County Campus
B.S., M.S., Texas Tech University
Robert W. Bauman Jr. ................... Chairman/Professor, Biology
                                          B.A., M.A., University of Texas at Austin
                                          Ph.D., Stanford University

Scott Beckett .......................... Professor/Instructor, 
                                          Music
                                          B.M.E., East Carolina University
                                          M.M., Florida State University

Steven C. Beckham ........................ Instructor, 
                                          Business Administration
                                          B.B.A., Southern Methodist University
                                          M.A., West Texas State University

Delores Behrens ........................... Chair/Professor, 
                                          Office Administration
                                          B.B.A., M.B.A., West Texas State University

Sondra K. Beighle ...................... Associate Director, 
                                          Criminal Justice Programs
                                          A.A.S., Amarillo College
                                          B.S., Wayland Baptist University

Mike Bellah .............................. Assistant Professor, English
                                          TH.B., Dallas Bible College
                                          M.A., West Texas A & M University
                                          Ph.D., Texas Tech University

Lisa Bentley ............................. Assistant Director, 
                                          Panhandle Tech Prep Partnership
                                          B.S., M.Ed., Texas Tech University

Terry L. Berg ............................. Dean, Fianance and 
                                          Administrative Services
                                          A.A., Amarillo College
                                          B.B.A., West Texas State University

Jo A. Blythe ................................ Instructor, English
                                          B.A., West Texas A&M University
                                          M.A., Texas Tech University

Kim Boyd ..................................... Instructor, 
                                          Medical Laboratory Technology
                                          A.A.S., Amarillo College
                                          MLT (ASCP), MT (AMT)

Robert Boyd .............................. Chair/Professor, 
                                          Speech and Theatre Arts
                                          B.A., Baylor University
                                          M.A., West Texas State University

Toni Brasher ............................. Director, 
                                          Criminal Justice Programs
                                          B.S., M.P.A., University of North Texas

Rudy E. Bratcher ..................... Associate Professor, 
                                          Computer Information Systems
                                          B.S.E., University of Nebraska, Omaha
                                          M.B.A., West Texas A&M University

Nancy F. Brent ......................... Assistant Professor, Counselor,
                                          Coordinator, Adult Students Program
                                          Advising & Counseling Center
                                          B.S., West Texas State University
                                          M.Ed., West Texas A&M University
                                          TEA Registered Counselor

Gale Brewer ...................... Instructor, Mathematics
                                          B.S., West Texas State University

Diane Brice ..................... Registrar, Registrar’s Office
                                          A.A.S., Amarillo College
                                          B.S., Wayland Baptist University

Jan Brister ............................ Professor, Office Administration
                                          B.S., M.B.A., West Texas State University

Susan Burgoon ............................. Instructor, Biology
                                          B.S., West Texas State University
                                          M.S., West Texas A&M University

Susan Burks ................................. Instructor, Management
                                          B.B.A., Texas A&M University
                                          M.B.A., West Texas A&M University
                                          Certified Professional in Human Resources

Georgann Burrell ..................... Coordinator, Distance Education
                                          B.A., Wayland Baptist University

William M. Burrell ..................... Professor, Art
                                          B.S., M.F.A., Sam Houston University
                                          M.S., Southwest Texas State University

Becky Burton ............................. Instructor, 
                                          Clinical Coordinator Radiology
                                          A.A.S., South Plains College

Carol Buse ................................. Assistant Professor,
                                          Computer Information Systems
                                          B.B.A., M.S., Texas A&M University

R.E. Byrd ................................. Vice President for Academic Affairs
                                          B.A., M.A., Harding College
                                          M.A., Eastern New Mexico University
                                          Ed.D., Memphis State University

Leslie Cagle .............................. Director, Testing Services
                                          B.S., M.Ed., West Texas A&M University

Jan Cannon ............................. Instructor, Associate Degree Nursing
                                          B.S.N., Hardin Simmons University
                                          M.S.N., West Texas A&M University
                                          Registered Nurse (Texas)

Gil Carnahan ............................. Instructor, Electronics Technology
                                          A.A.S., Texas State Technical Institute
                                          B.A.A.S., West Texas A&M University

Edie Carter .............................. Instructor, Mathematics
                                          B.S., Texas Tech University
                                          M.Ed., West Texas State University

Judith L. Carter ...................... Assistant Professor, English
                                          Coordinator, Developmental English
                                          B.A., Ph.D., Texas Woman's University
                                          M.A., University of North Texas

Judy H. Carter .............................. Professor, 
                                          Speech and Theatre
                                          B.S., Southern Utah State College
                                          M.A., West Texas State University

Jana Carver ............................. Assistant Professor,
                                          Computer Information Systems
                                          B.B.E., M.B.E., West Texas State University

Alexander E. Chancia ...................... Coordinator,
                                          Criminal Justice Programs
                                          B.S., Utica College of Syracuse University

Richard Chelf ........................ Workforce Training Coordinator,
                                          Workforce Development Division
                                          A.A.S., Eastern New Mexico University
                                          B.S., Wayland Baptist University
                                          M.Ed., Wayland Baptist University

Alix Christian ..................... Assistant Professor, Art
                                          B.F.A., Pacific Northwest College of Art
                                          M.A., M.F.A., West Texas A&M University

Donna Cleere ..................... Director/Professor, Dental Hygiene
                                          A.S., A.A.S., Amarillo College
                                          M.Ed., B.S.O.E., Wayland Baptist University
Jim F. Clements .......................... Director, Fire, Safety and Environmental Programs
B.S., Texas Tech University
M.S., West Texas A&M University

Cherie Clifton .................. Counselor, Assistant Professor
B.S., University of North Texas
M.Ed., West Texas State University
National Certified Counselor
Texas Licensed Professional Counselor
Social Work Associate

Craig Clifton .................. Coordinator/Instructor, Fitness and Life Services
A.S., Vernon Regional Junior College
B.S., M.S., West Texas State University

Jnita Collins .................. Assistant Professor, Dental Hygiene
A.A.S., Amarillo College
B.S., Wayland Baptist University

Jana Comerford .................. Instructor, Library Network
A.S., Vernon Regional Junior College
B.S., Texas Tech University
M.L.S., Texas Woman's University

Michelle Conrad .................. Instructor, Nursing
A.A.S., Amarillo College
B.S.N., West Texas A&M University

Shannon Cornell .................. Instructor, Mathematics
B.S., M.S., West Texas A&M University

Steven Cost .................. Associate Professor, Art/Graphic Design
B.A., Southwestern Oklahoma State University
M.A., University of West Florida
M.A., M.F.A, West Texas State University

Bruce Cotgreave .................. Director, Physical Plant

LuLu Cowan .................. Workforce Training Coordinator
Workforce Development Division
B.S.W., West Texas A&M University
M.S.W., University of Texas at Arlington

Matthew Craig .................. Associate Professor, Biology
B.S., West Texas State University
M.S., West Texas A&M University

Bill Crawford .................. Chair, Allied Health Division
Associate Vocational Professor, Radiography
R.T.R. (ARRT), St. Anthony's Hospital
School of Radiologic Technology
A.A.S., Amarillo College
B.A.A.S., West Texas State University

Bradley D. Darnall .................. Instructor, Truck Driving Academy
A.A.S., Amarillo College

Julia S. Davis .................. Instructor, Mathematics/Special Services
B.S., Texas Christian University
M.Ed., Texas Woman's University

Kim Davis .................. Director, Continuing Education
A.A.S., Amarillo College
B.S., Wayland Baptist University

Don (Tom) T. Deckard .................. Instructor, Microcomputer Service Technology, TDCJ/
Computer Information Systems
Certificate, Amarillo College

Pam Dickerson .................. Associate Director, Administrative Services
B.G.S., West Texas A&M University

Karla Dixon .................. Instructor, Nursing
B.S.N., West Texas A&M University

Mary Lynn Dodson .................. Associate Professor, English
B.G.S., M.A., West Texas A&M University
Ph.D., Texas Tech University

Sharon Dogget .................. A.C.B.P. Coordinator, Business Affairs
A.S., Amarillo College
B.B.A., West Texas State University

Jeff Doiron .................. Director, Center for Continuing Healthcare Education
R.N., Pilgrim State Hospital
School of Nursing and Long Island University
B.S.N., M.S.N., West Texas State University

Nichol Dolby .................. Assistant Professor, Biology
B.S., University of Washington
M.S., Ph.D., Rice University

Mary Margaret Dunn .................. Assistant Professor, Computer Information Systems
A.S., Amarillo College
B.B.A., Eastern New Mexico University
M.A., West Texas A&M University

Steve Dutton .................. Professor, Biology
B.S., M.S., West Texas State University

Michael W. Duval .................. Director, Police Department
A.A., West Valley College

Rebecca R. Easton .................. Instructor, English
B.A., Culver-Stockton College
M.S., Northeastern State University

Pamela Eccles .................. Instructor, Physical Education/Nutrition
B.S., Texas Tech
M.S., West Texas A&M University

Greg Edwards .................. Associate Professor, Social Science
B.S., M.A., Colorado State University

NseAbasi U. Ekpo .................. Director, Student Support Services
School of Nursing and Long Island University
B.S.N., M.S.N., West Texas State University

James Elliott .................. Director of Administrative Services, Business Office
B.B.A., West Texas State University

Brian R. Farmer .................. Professor, Social Sciences
A.S., Midland College
B.A., University of Texas, Permian Basin
M.A., Ph.D., Texas Tech University

Ron Faulkner .................. Coordinator, External Technical Training and External Learning Experience
B.S., East Texas State University
M.Ed., Tarleton State University
Texas Licensed Professional Counselor

Dan Ferguson .................. Instructor, English
B.S., University of North Texas
M.A., Creighton University
Robert Ferrell ................................................ Instructor, High School Equivalency Program (HEP)  B.B.A., M.A., West Texas A&M University

David Fike ............................................ Chair/Assistant Professor, Mathematics  B.S., Southern Nazarene University  M.S., West Texas State University

Renea Fike .......................................... Dean, Student and Academic Development  B.B.E., M.B.E., West Texas State University  Ed.D., Texas Tech University

Beverly Fite ........................................... Professor, Computer Information Systems  A.A.S., Amarillo College  B.B.E., M.B.E., West Texas State University

Victor Fite .......................................... Dean, Informational Systems & Technology  A.A.S., Amarillo College  B.A.A.S., M.B.A., West Texas A&M University

Sandy L. Fricks ...................................... Instructor, Associate Degree Nursing  Diploma, Northwest Texas Hospital School of Nursing  B.S.N., M.S.N, West Texas State University  Registered Nurse (Texas)

Debbie R. Frymoyer ................................ Instructor, Microsoft Office Specialist Master  B.S., California Coast University

Joe Gandy ........................................... Instructor, Aviation Maintenance  B.S.O.E., Wayland Baptist University  M.A., St. Mary's University  Licensed FAA A. and P.

Jeffery L. Gibson ................................... Director, Information Technology Services  B.A., West Texas A&M University

Jill Gibson .......................................... Instructor, Speech/Mass Communication  A.B., Stanford University  M.S.J., Northwestern University

Mike Glasscock .......................... Associate Professor, Accounting  B.B.A., M.S., West Texas State University

Pedro A. Gonzalez ...................... Instructor, Art-Graphic Design  A.A.S., Texas State Technical Institute

Michael B. Graf ...................................... Instructor, Diesel Mechanics Technology  A.S., Amarillo College

Mary E. Graff ..................................... Assistant Professor, Physical Sciences  B.A., Wichita State University  M.S., West Texas State University

Kevin W. Grooms ......................... Instructor, Transportation Technology  A.A.S., Amarillo College

D’dee Grove ........................................ Instructor, Associate Degree Nursing  A.A.S., Amarillo College  B.S.N., M.S.N, West Texas A&M University  Registered Nurse (Texas)

Jeffery D. Hale ......................... Instructor, Electronic Systems Technology  A.A.S., Amarillo College

Ann Hamblin ...................................... Professor, Developmental Education, ACcess Learning Center  B.S., M.Ed., West Texas State University

Denise N. Hampton .................. Instructor, Reading  B.S., M.Ed., Texas Tech University

Mark L. Hanna .......................... College Librarian, Amarillo College Library  A.A., Amarillo College  B.A., M.A., West Texas State University  M.L.S., University of North Texas

Valerie A. Hansen ................... Associate Vocational Professor, Respiratory Care  B.S., Iowa State University  R.R.T., National Board of Respiratory Care

Jean Harris ................................. Associate Professor, Social Sciences  B.A., M.A., University of Texas at Austin

Helen Hart ......................... Instructor, Associate Degree Nursing  Diploma, St. Anthony School of Nursing  M.S.N., University of Oklahoma  B.S., Central State University  Registered Nurse (Texas)

Mike Haynes ................. Instructor, Journalism/Advisor, Student Publications  B.A., M.A., Texas Tech University

Hugh L. Hays ......................... Instructor, HEP/GED, Student & Academic Development  B.S., Texas Tech University  M.S., Texas A&M of Commerce

Kim T. Hays ..................... Associate Professor, Industrial Maintenance Technology  A.A.S., Amarillo College  B.S., M.S., West Texas A&M University

R. Michael Henderson ........... Instructor, Dental Hygiene  B.A., Texas Tech University  D.D.S., Baylor College of Dentistry

David O. Hernandez .......... Director, Human Resources  A.S., Amarillo College  B.S., M.S., Wayland Baptist College

Joyce Herring ................... General Manager, KACV-TV/FM  B.J., M.A., University of Texas, Austin

Jan Hinds ......................... Associate Professor, Reading  B.A., M.Ed., West Texas State University

Richard Hobbs .................... Associate Professor, Physical Sciences  B.S., M.S., Oklahoma State University  Ph.D., University of Wyoming

Tom Hodges ......................... Professor, English  B.A., Southern Colorado State College  M.A., Washington State University

Paul W. Hogue .................... Associate Degree Nursing  B.S.N., M.S.N, West Texas State College  Registered Nurse (Texas)

Lisa Holdaway .................. Program Director, Surgical Technology  A.A.S., Amarillo College
Lola M. Hornstra ............................................ Director, Investment Management, Business Office
A.A.S., Amarillo College
B.B.A., West Texas State University

Rhonda Howard ........................................... Instructor, Associate Degree Nursing
M.S.N., F.N.P., West Texas A&M University
Registered Nurse (Texas)

Richard Edwin Howard .................. Assistant Professor, Biology
A.S., Amarillo College
B.S., West Texas State University
M.S., University of Arkansas

Dwight H. Huber .................. Chair/Professor, English
B.A., West Texas State University
M.A., Texas Tech University

Janis Hunt .................. Instructor, Advising and Counseling Center
B.S., M.Ed., West Texas State University
Licensed Professional Counselor

Priscilla Hunt ................. Instructor, ACcess Learning Center
B.S., University of Houston
M.S., Texas Woman's University

Rena Hutches .................. Instructor, Physical Therapist Assistant
A.A.S., Colby Community College

Bobbie Hyndman .................. Instructor, Computer Information Systems
B.B.A., M.B.A., West Texas A&M University

Judy Isbell .................. Professor, English as a Second Language
B.S., Texas Tech University
M.Ed., West Texas State University

Judy Jackman .................. Professor, Advising and Counseling Center
B.S., M.Ed., West Texas State University
Registered Professional Educational Diagnostician
TEA Registered Counselor

Lana Jackson .................. Chair/Associate Professor, Radio-TV and Journalism
A.A., Odessa College
B.A., M.A., University of Texas of the Permian Basin

Joseph Brian Jacob .................. Instructor, Ford Contract
A.A.S., Amarillo College
B.S.O.E., Southwest Texas State University

Lynaé Latham Jacob .................. Director/Instructor, Speech and Theater
B.S., M.A. West Texas State University

Sandra Jefferson .................. Program Coordinator, Safety & Environmental Technology
B.S., West Texas A&M University

Bradley W. Johnson .................. Dean, College Advancement
B.A., M.Ed., West Texas State University
M.Ed., Texas Tech University
Ed.D., University of Nebraska

Diana Lyn Johnson .................. Instructor, Mathematics
A.S., Amarillo College
B.S., West Texas State University
M.S., Texas Tech University

Judy B. Johnson .................. Assistant Professor, Reading
B.A., Houston Baptist University
M.Ed., Stephen F. Austin State University

Mary J. Johnson .................. Artist Professor, Music
B.M.E., Texas Tech University
M.M., West Texas State University

Kelly Jones .................. Director/Instructor, Physical Therapist Assistant
B.S., West Texas A&M University
M.P.T., Texas Tech University

Marianne Jones .................. Instructor, Nursing
B.S.N., University of Texas at Arlington
M.S.N., West Texas A&M University

Marianne Jones .................. Assistant Professor, Advising and Counseling Center
B.S., Hardin-Simmons University
M.Ed., University of North Texas
Licensed Professional Counselor

Dr. Steven W. Jones .................. President
B.B.A., Northwestern State University
M.B.A., University of Mississippi
Ed.D., Nova-Southeastern University

Janice K. Joyner .................. Instructor/Counselor, Business Division and Language, Communications & Fine Arts Division
B.B.A., M.Ed., Midwestern State University
Licensed Professional Counselor

J. Alan Kee .................. Assistant Professor, Psychology
B.A., Southwestern University
M.Ed., Ph.D., Temple University

Jana M. Kidd .................. Assistant Professor, Nursing
Diploma, Northwest Texas Hospital School of Nursing
B.S.N., Loretto Heights College
M.S.N., West Texas State University
F.N.P., Fort Hays State University
Registered Nurse (Texas)

Terry Kleffman .................. Director, Programming Services
A.A.S., Amarillo College
B.B.A, West Texas State University

Patricia Cullum Knight .................. Professor, English
B.A., M.A., Texas Tech University

Macy Kohler .................. Instructor, Mathematics
B.S., West Texas State University
M.S., West Texas A&M University

Michael S. Kopenits .................. Instructor, Biology Science
B.A., Kent State University
D.M.D., University of Pittsburgh School of Dental Medicine

Robert Lafferty .................. Instructor, Automotive Technology
A.A.S., Amarillo College

Catheryne Lankford .................. Coordinator/Instructor, Travel and Tourism
A.A.S., Amarillo College
B.A., University of Texas of the Permian Basin
C.T.C., Institute Certified Travel Agents

James Laughlin .................. Professor, Music
B.A., B.M.E., Southwestern Oklahoma State University
M.M.E., Wichita State University
Ph.D., University of North Texas
<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Role</th>
<th>Institution(s)</th>
</tr>
</thead>
</table>
| Robert Lee                    | Chair, Industrial and Transportation Technologies Division | A.A.S., Colorado Northwestern Community College  
B.S., M.A., Colorado State University |
| Paty Lemaster                 | Professor/Director, Professional and Organizational Development | A.S., Amarillo College  
B.B.A., M.B.E., West Texas State University |
| Duane Lintner                 | Chair/Associate Professor, Computer Information Systems | B.B.A., Texas Lutheran College  
M.B.A., West Texas State University |
| John S. Lisman                | Instructor, Electronic Systems Technology       | B.S., Northwestern State College |
| Sara G. Long                  | Manager, Business Office, Finance and Administrative Services | B.B.A., West Texas A&M University |
| Dale Longbine                 | Director, Assistance Centers                   | A.S., Amarillo College  
A.A.S., Amarillo College  
B.S.O.E., Wayland Baptist University |
| Derek A. Lyon                 | Instructor, Automotive Technology               | A.A., Temple Junior College  
B.A.A.S., West Texas State University |
| Daryl W. Maddox               | Instructor, Physical Sciences                  | B.S., M.S., West Texas State University |
| Patricia C. Maddox            | Instructor, English                             | B.A., West Texas State University |
| Aimee Martin                  | Assistant Professor, Mathematics                | B.A., Texas Christian University  
M.A., Texas Tech University |
| Janet M. Martin               | Director/Associate Professor, Medical Laboratory Technology | A.A.S., Shoreline College  
B.A., California State University, Sacramento  
M.Ed., Wayland Baptist University  
CLT/CLS (NCA), MLT/MT (ASCP) |
| Judy Massie                   | Program Director/Instructor, Medical Data Specialist | A.A.S., Amarillo College  
Certified Medical Assistant, American Association of Medical Assistants |
| Robert L. Mathews             | Director of Operations, Truck Driving Academy   | A.A.S., Amarillo College  
B.S., University of Nebraska |
| Paul Matney                   | Associate Vice President for Instruction, Division of Language, Communication, and Fine Arts/Professor, Mass Communication, and Speech Communication | B.J., University of Texas, Austin  
M.A., West Texas State University  
Ed.D., Texas Tech University |
| Bobby R. May                  | Professor, Mathematics                         | B.B.A., M.S., West Texas State University |
| Danita L. McAnally            | Director, Institutional Effectiveness and Advancement | B.S., M.Ed., Eastern New Mexico University |
| Daniel W. McCall              | Vocational Professor, Drafting and Design       | B.A., University of Virginia  
B.S., West Texas State University  
M.S., Virginia Commonwealth University |
| Jimmy L. McClure              | Instructor, Industrial Maintenance              | A.A.S., Texas State Technical College  
B.A.A.S., M.S., West Texas A&M University |
| Susan Holstun McClure         | Division Advisor & Instructor, Allied Health and Nursing | A.A., Southwestern Assemblies of God College  
B.S., M.A., Eastern New Mexico University |
| Jane McFarland                | Instructor, Dental Hygiene                      | A.A.S., Amarillo College  
B.S., Wayland Baptist University |
| Larry B. McGinnis             | Professor, English                             | B.A., M.A., Hardin-Simmons University |
| Kim McGowan                   | Instructor, Mathematics                        | B.S., Stephen F. Austin State University  
M.S., Texas Tech University |
| Karen McIntosh                | Assistant Director for Technical Services, Lynn Library/Learning Center | B.A., Oklahoma State University  
M.L.S., University of Oklahoma |
| Catherine Menchenbier         | Instructor, Mathematics & Engineering           | B.S., New Mexico State University  
M.E., Texas Tech University |
| Deann C. Merchant             | Professor, Psychology                           | B.A., M.A., West Texas State University  
Ph.D., Texas Woman’s University |
| Linda Messenger               | Instructor, Associate Degree Nursing            | A.S., Rose State College  
A.A.S., Amarillo College  
B.S.N., M.S.N., West Texas A&M University  
Registered Nurse (Texas) |
| Courtney G. Milleson          | Coordinator/Instructor, Supplemental Instruction | B.A., West Texas A&M University  
M.Ed., Texas Tech University |
| J. Gay Mills                  | Assistant Professor, Computer Information Systems | B.S., Hardin-Simmons University  
M.B.E., West Texas A&M University |
| Neil A. Mock                  | Instructor, Mathematics                        | B.S., University of Utah  
M.S., Utah State University |
| Jerry Moller                  | Chair, Division of Behavioral Studies           | Assistant Professor, Fitness and Life Services  
B.S., Colorado State University  
M.S., West Texas State University |
| Kay Mooney                    | Director, Financial Aid                         | B.G.S., West Texas State University |
| Delton Moore                  | Director, Institutional Research                | B.S., West Texas A&M University  
M.S., West Texas A&M University |
Marjeanne B. Moore ................................... Instructor,
Associate Degree Nursing
Diploma - Northwest Texas Hospital School of Nursing
B.S.N., M.A., West Texas State University
Registered Nurse (Texas)

Robert Terry Moore ........ Professor, German and French
B.A., M.A., Stephen F. Austin State University

Jim Morris ...................... Special Projects Manager,
Institutional Effectiveness and Advancement/
Vice President for Academic Affairs
B.S. Ed., M.A., West Texas State University

Luke Morrison .............. Coordinator, Leisure Studies
B.A., M.B.A., Texas Tech University

Dennis Moseley ................ Instructor,
Aviation Maintenance Technology
B.S., West Texas State University

Sheryl S. Mueller ............. Chair/Associate Professor,
Nursing Division
A.A.S., Amarillo College
B.S., University of Texas Health Science Center, Houston
M.S.Ed., Kansas State University
M.S.N., California State University, Los Angeles
Registered Nurse (Texas)

Mary C. Munger ................ Program Coordinator/
Assistant Professor/Child Development/
Early Childhood
B.S., M.Ed., Southwest Texas State University

Millard L. Murray ................. Instructor,
Computer Information Systems
A.S., Amarillo College
B.B.A., M.S., West Texas State University

Patrice H. Murray ................ Professor,
Associate Degree Nursing
Diploma, DePaul Hospital School of Nursing
B.S.N., University of Texas Health Science Center, San Antonio
M.S.N., West Texas State University
Registered Nurse (Texas)

Anne Haralson Nail ........... Assistant Professor, Management
B.S., M.S., Texas Tech University

Ellen Robertson Neal ........... Director,
Communications College Relations
B.J., University of Texas, Austin
M.A., West Texas State & University

William D. Netherton ........ Professor, English
B.A., M.A., West Texas State University
Ph.D., Texas Tech University

A. Ray Newburg, Jr. .......... Instructor, Speech/Theatre
A.S., Amarillo College
B.A., Texas Wesleyan University
M.F.A., Tulane University

Helen Carol Nicklaus .......... Professor, Humanities
B.A., University of Texas, Austin
M.A., University of Utah

Camille Day Nies ............. Coordinator,
Suzuki String Program - Music
B.M., West Texas State University
M.M., West Texas A&M University

Ed Nolte .................. Chair/Assistant Professor,
Manufacturing Technologies
B.A., Ohio State University
M.S., West Texas State University

Andrea Olivarez ................ Instruction, English
B.G.S., West Texas A&M University
M.A., West Texas A&M University

Dennis Olson .................... Assistant Professor, Art
B.A., Missouri Western State College
M.F.A., North Texas State University

Trent A. Oneal .................. Instructor, Fitness and Life Services
B.S., M.S., West Texas A&M University

Jaime Peña ..................... Auto Body Instructor,
Transportation Technology
Texas State Technical Institute

Michael C. Peterson ............ Instructor,
Electronic Technology Department
A.A.S., Amarillo College
A.A.S., Texas State Technical College
B.E.E., DeVry Institute Technology

Douglas L. Pickle ............ Professor,
Electronics Systems Technology
Certificate of Graduate, Paris Junior College
B.S., University of Houston
M.Ed., Ed.D., East Texas State University

Jennifer Pickle .................. Assistant Professor,
Computer Information Systems
B.B.A., University of Houston
M.Ed., Eastern New Mexico University

Kenneth D. Pirtle ............. Chair/Professor, Visual Arts
B.F.A., Texas Tech University
M.A., West Texas State University

Wendy Poling ................... Instructor,
Mathematics and Engineering
B.S., West Texas A&M University
M.S., Texas A&M University

John R. Pool ................... Instructor, Mathematics
B.S., M.S., University of North Texas

Dan A. Porter .................. Professor, Biology
B.S., M.S., West Texas State University

James Powell ............... Assistant Professor, Social Sciences
B.A., M.A., West Texas State University
Ph.D., University of Kentucky

Rao S. Prabhakar ............ Associate Professor,
Computer Information Systems
B.E., Madras University
M.B.A., West Texas State University
Ph.D., University of Texas, Arlington

Rathna Prabhakar ........ Assistant Professor, Engineering
Sciences and Engineering
B.S., M.S., Delhi University, India
M.Ed., West Texas State University

Richard L. Pullen ............ Professor, Nursing
A.A.S., Amarillo College
B.S.N., M.S.N., West Texas State University
Ed.D., Nova Southeastern University
Registered Nurse (Texas)

Philip Pursley ............... Instructor,
Electronic Systems Technology
A.A.S., Amarillo College

James F. Rauscher .......... Chair/Professor, Music
B.M.E., University of Wisconsin - Eau Claire
M.M., University of Illinois, Urbana/Champaign
Ph.D., Texas Tech University
Katherine E. Reed …………………. Associate Professor, Associate Degree Nursing
B.S.N., Texas Woman’s University
M.S.N., West Texas State University
Registered Nurse (Texas)

Linda Reed …….. Coordinator, Occupational Education
B.S., M.A., West Texas A&M University

Jana Rice ………………………………. Instructor, Child Development/Early Childhood Education
B.S., Angelo State University

Theresa Rider ……… General Accounting & Budget Manager, Business Office
B.B.A, Texas Tech University

Sandra Roberson …………………… Assistant Professor, Associate Degree Nursing
Diploma, Northwest Texas Hospital School of Nursing
B.S.N., West Texas State University
M.S.N., University of Texas
Registered Nurse (Texas)

John D. Root …………………………. Instructor, Computer Information Systems
A.A.S., Amarillo College
A.A.S., Texas State Technical Institute
B.S., Wayland Baptist University

Mark E. Rowh………………………. Director/Instructor, Nuclear Medicine
A.A.S., Amarillo College
B.S., Weber State University
ARRT, CNMT

Brenda S. Rush …….. Academic Advisor, Special Services
A.A., Odessa College
B.S., University of North Texas
M.S., Texas A&M University

Jill Rushing …………………………. Instructor, Nursing
B.S.N., Hardin Simmons University
M.S.N., West Texas State University
Registered Nurse (Texas)

Gilbert Anthony Saiz …………………. Instructor, Industrial Maintenance Technology

Damaris Schlong ……………………………. Dean, Workforce and Economic Development
A.A., Amarillo College
B.A., University of Mississippi
M.A., West Texas A&M University

H. Allen Schmieding, C.P.M. ………… Director, Purchasing
A.A., Amarillo College
B.B.A., West Texas State University
M.Ed., West Texas A&M University

Dana C. Scott …………. Coordinator/Instructor, Dentist Aide
A.S., Amarillo College

Lou Ann Seabourn ………… Director, Extended Programs
B.S., M.A., West Texas State University

April L. Sessler ……………… Director, Student Activities
B.A., M.Ed., West Texas State University

Lyndi C. Shadbolt ………………… Associate Professor, Coordinator-Vocational Nursing
B.S.N., M.S., West Texas A&M University
Registered Nurse (Texas)

Tom B. Shelton …………………… Associate Vocational Professor, Automotive Technology
Certificate, Oklahoma State Tech
A.A.S., Amarillo College
B.S.O.E., Wayland Baptist University

Robert B. Sloger …………………. Chair/Assistant Professor, Division of Business, Computer Information Systems
A.A.S., Amarillo College
B.B.A., West Texas State University
M.B.A., West Texas A&M University

Jackie W. Smith …………………… Director, Broadcast Operations KACV-TV
A.S., Amarillo College

John Smoot ………………………… Program Director/Instructor, Emergency Medical Services Professions
A.A.S., Amarillo College
B.A.A.S., West Texas A&M University
Emergency Medical Technician-Licensed Paramedic
NREMT-Paramedic

Britt D. Sosebee …………………… Grant Accounting Manager, Business Office
B.B.A., West Texas State University

Carrol Spears ……………………. Instructor, Mathematics
B.S., M.S., West Texas State University

Jack Stanley ………………………… Chair/Associate Professor, Electronics Technology
A.A., Amarillo College
B.S., M.S., West Texas State University

Maria del Pilar Suarez ………………… Associate Director, Center for Continuing Healthcare Education
B.S.N., West Texas State University

Carol Summers ……………………. Instructor, ESL
B.A., Wayland Baptist University

Yufeng Sun ……………………. Professor, Physical Sciences
B.S., Nanjing University (China)
Ph.D., University of Texas, Austin

Tony Tackitt ……………………. Program Director/Instructor, Radiation Therapy
A.A.S., Amarillo College
B.M.Ed., West Texas State University

Sheree Hilliard Talkington …………. Director/Instructor, Occupational Therapy Assistant Program
B.S., University of Texas Medical Branch
M.A., Texas Women’s University

Barbara Taylor ……………………. Instructor, Biology
B.S., M.S., West Texas State University

Victoria Taylor-Gore ………………… Assistant Professor, Art
B.F.A., West Texas State University
M.F.A., University of California

Paul A. Teichmann, II ………….. Instructor, Physical Science
B.S., West Texas State University
M.S., West Texas A&M University

Tony R. Thomas ……………………. Program Coordinator/Associate Professor, Drafting
B.S., West Texas State University
M.S., West Texas A&M University
Delores N. Thompson .................. Associate Professor, Vocational Nursing  
B.S.N., Texas Womans University  
M.S.N., West Texas A&M University  
Registered Nurse (Texas)  
Lynn Thornton ...................... Director of Human Resources  
B.S.-MGMT., Wayland Baptist University  
M.A.-MGMT., Wayland Baptist University  
Anthony R. Thorpe ..................... Instructor, Electronics Technology  
A.A.S., Community College, U.S.A.F.  
B.S., Wayland Baptist University  
M.S., West Texas A&M University  
Tom Toperzer .................. Executive Director, Chief Curator  
Amarillo Museum of Art  
University of Nebraska  
B.A., Southwestern College  
Sarah Uselding .................. Instructor, Criminal Justice  
B.A., M.A., West Texas A&M University  
Mark C. Usnick ..................... Instructor, Engineering Computer Science  
B.S., M.S., Texas A&M University  
Minnie G. Venable .................. Instructor, Speech/Psychology  
A.A., Odessa College  
B.A., Southwest Texas State University  
M.A., Baylor University  
Renée Vincent .................... Executive Director, Moore County Campus  
B.S.B., M.S., M.S., Emporia State University  
LeAnne Vogel ..................... Director, Panhandle TechPrep Partnership  
A.S., Clarendon College  
B.S., Texas Tech University  
M.S., West Texas A&M University  
Eric C. Wallace .................. Coordinator of Intervention Programs, Criminal Justice  
B.S., West Texas State University  
M.A., West Texas A&M University  
Margaret Waguespack ...... Assistant Professor, English  
B.A., Spring Hill College  
B.S., University of South Alabama  
M.A., Clemson University  
A.B.D., Auburn University  
Joseph W. Walsh .................. Associate Professor, Photography  
B.S., College of the Holy Cross  
M.A., Goddard College  
Steven T. Weber ..................... Professor/Director, Choral Activities, Music  
B.S., Lebanon Valley College  
M.M., The Catholic University of America  
M.M., D.M.A., Arizona State University  
Kathryn C. Wetzel .................. Chair/Professor, Mathematics and Engineering  
B.S., Texas A&M University  
M.F., Ph.D., Texas Tech University  
Richard W. Whitaker .................. Instructor, Aviation Maintenance Technology  
A.A.S., Amarillo College  
A & P, Federal Aviation Administration  
B.G.S., West Texas A&M University  
Paul E. Whitfield .................... Assistant Professor, Emergency Medical Services Professions  
A.A.S., Amarillo College  
B.S., M.S., West Texas A&M University  
Brenda Wilkes .................. Coordinator, DisAbility Services  
B.A., Southern Methodist University  
M.Ed., West Texas A&M University  
Judy Williams ..................... Instructor, Reading  
B.A., Augustana College  
M.Ed., West Texas A&M University  
Sarah H. Williamson ........... Instructor, Vocational Nursing  
B.S.N., Baylor University  
Lillian (Lil) C. Withrow ........... Librarian, West Campus  
B.S., University of Nebraska  
M.L.S., University of North Texas  
Ken Woody .................... Associate Professor, Radiography Program  
R.T.R. (ARRT) Parkland Hospital  
R.N., Northwest Texas Hospital School of Nursing  
A.A.S., Amarillo College  
B.S., Wayland Baptist University  
Kim C. Wright ..................... Instructor, Associate Degree Nursing  
A.D.N., Tarleton State University  
B.S.N., West Texas State University  
MSN, West Texas A&M University  
Registered Nurse (Texas)  
Henry Wyckoff ..................... Chair/Instructor, Automotive Technology  
B.S., Wayland Baptist University  
Larry D. Young ..................... Instructor, Electronics  
B.S., Sam Houston State University  
William A. Young .................. Program Director/Vocational Professor, Respiratory Care  
B.S., M.S., West Texas State University  
Certificate, University of Oklahoma
BIBLE CHAIRS
Bobby Boaldin, M.Min
Amarillo Bible Chair
Karen Shumaker, B.S., M.A.
Baptist Student Union
Jonathan Kohler, M.A.
Bible Chair of the Southwest

ADJUNCT FACULTY

ALLIED HEALTH DIVISION

Dentist Aide
Dean Armstrong, DDS
John Banks, DDS
Steve Banks, DDS
Dan Bentley, DDS
Chris Brady, DDS
Richard Brauchi, DDS
Larry Chesley, DDS
Joel Coker, DDS
Kirk Coury, DDS
James Douthitt, DDS
Greg Harrison, DDS
Anthony Harwell, Jr., DDS
Tom Karr, DDS
Wayne McEntire, DDS
Troy Moore, DDS
William Osborn, DDS
Tyler Pendergrass, DDS
Ivette Plata, DDS
Ron Redus, DDS
Michael Vaclav, DDS
James Vaughn, DDS
John Whinery, Jr., DDS
David Woodburn, DDS

Dental Hygiene
Jack Fong, DDS
Tom Logan, DDS
Madeline Borecki, DMD

Medical Data Specialist
Shelley Berry, MDS
Polly Borden
Kathy Garnett, ART
Jack Gillum, Ph.D
Misty Harvey, MDS
Mary Hernandez, RHIT, CCS
Jane Howk
Lori Massie
Jan Parker, ART
Lori Story
Teresa Vasquez
Jonna White, RRA
Lesa Wilson, MDS

Medical Laboratory Technology
Tom Birbeck, MS, MT (ASCP)
Jack Breitling, MT (ASCP)
George Bridges, MT (ASCP)
Linda Bush, MT (ASCP)
Diane Davis, SM (ASCP)
Fred Gill, MT (ASCP)
Richard Hall, MT (AHT)
Carol Jackson, MT (ASCP)

Larry Lance, MT (ASCP)
Elise Lavin, MS, MT (ASCP)
Sondra Lund, MT (ASCP)
Eric Nickens, MT (ASCP)
Sam Pierce, MT (ASCP)
Glenda Ramsey, SBB (ASCP)
Dale Rollins, MT/DLM (ASCP)
Crystal Roop, MLT (ASCP), CLS (NCA)
Kay Rowland, MT (AMT)
Kim Sparling, MT
Garland Strate, MLT (ASCP)
Evaline Thompson, MD
Brian Toycen, MT (ASCP)
Benjamin Weber, MT (ASCP)
Becky Williams, MT (ASCP)
John Winters, MT (ASCP)

Nuclear Medicine
Doyle Bowers, CNMT
Bill Byrd, MD
Linda Heard, CNMT
Brad Immel, RT (R), CNMT
Helen Jean, RT, (R), CNMT
Shelly Price, RT (R), CNMT
Ben Reid, CNMT
Ed Smith, CNMT
Lindsey Willis, CNMT
Holly Hendricks, CNMT

Occupational Therapy Assistant
Renee Addington, OTR
Erik Bass, COTA
Yolanda Benson, COTA
Shelly Black, COTA
Amy Brown, OTR
Tiffany Carpenter
Lisa Clifford, OTR
Kathy Curlless, OTR
D’les Dyer, OTR
Chris Fox, COTA
Ralph Fuentes, COTA
Shirley Fuentes, OTR
Cheryl Garth, COTA
Constance Grant, COTA
Jennifer Hawley, OTR
Reba Hefley, COTA
Tammy Keplinger, COTA
Margaret King, OTR
Renee Lichtie, COTA
Tracy McLeland, COTA
Kelly Monroe, COTA
Starla Rose, OTR
Barry Royal, OTR
Dorothy Schweter, OTR
Aimee Shatney, OTR
Shannon Stephens, COTA
Janice Stowers, COTA
David Tedrick, COTA
Annet Waxler, COTA
Travis Williams, COTA

Emergency Medical Services
Professions
Brad Baker, RN
Erik Lynn, NREMT-P
Carrie Nemoede, CST
Stephen Neuman, MD
Mark Nickson, RN, NREMT-P
Jean Whitehead, RN

Physical Therapist Assistant
Shane Broadus, BS
Deb Christy, PT
Randy Clark, PT
Christy Clevenger, PTA
Darlene Couch, PT
Robin Corea, PTA
Tanna DeBerry, PT
Aaron DeLong, PT
Jeff Denton, PT
Ruben DeSantiago, PTA
Staci Duran, PT
Debbie Ehly, PT
Keri Hacker, PTA
Linda Hall, PTA
Ed Hankard, PT
Debra Harbison, PTA
Bob Ingam, PT
Jim Keister, PT
Susan Kendall, PT
Chad Mason, BS
Rae McBride, PT
Sonya McCubbin, PT
Robin Neece, PTA
Derek Neil, PT
Agnes Posadas, PTA
Stacey Skee, PTA
Velecia Snyder, PTA
Rosa Valverde, PTA
Krista Weaver, PTA

Radiation Therapy
Kirk Aduddell, RTT
Heidi Aduddell, RT (R)
Dale Barker, RT (T)
Kendal Derrik, RT (T)
Kathy Haynes, RT (R) (T)
Talitha Jacoby, RTT
Deanna Newberry, RT (T)
Melanie Ormsby, RT (T)
Monica Pando, RT (T)
Keitha Rahls, RT (T)
Cammy Taylor, RT (T)
Jennifer Tietz, RTT
Kristi Terrel, RT (T)
Marianne Thomason, RT (R) (T)
Aneta Younger, (R) (T)

Radiography
Jody Birch, RT (R)
Tiana Brown, RT (R)
Joe Dale Bradshaw, RT (R)
CaroleAnn Ellerston, RT (NM)
Julie Everson, RT, (R) (M)
Kim La Fav’re, RT (R)
Lisa Hoke, RT (R) (CT)
Bruce Jones, RT (R)
Helena Leonard, RT (R) (M)
Patricia Munoz RT (R)
Campus Maps

East Campus

BUILDING ABBREVIATIONS
H................................................... Aircraft Hangar
L .................................................. Resource Center
P .................................................. Auto Collision Technology
R .................................................. Professional Truck Operations
S .................................................. Transportation Complex
T .................................................. Electronics
U .................................................. Apprenticeship
V .................................................. Industrial Center
W .................................................. Aviation and Welding
RESE, RESN, RESS, RESW ........... Residence Halls
SAC ............................................. Student Activity Center
3200 .......................................... Storage Building
5220 .......................................... Post Office
6510 .......................................... Laundry
7407 .......................................... Physical Plant
Moore County Campus

BUILDING ABBREVIATIONS

H .................................................... Aircraft Hangar
L .................................................... Resource Center
P .................................................... Auto Collision Technology
R .................................................... Professional Truck Operations
S .................................................... Transportation Complex
T .................................................... Electronics
U .................................................... Apprenticeship
V .................................................... Industrial Center
W ................................................... Aviation and Welding

Polk Street Campus

BUILDING ABBREVIATIONS

ASSC .................... Amarillo Senior Citizens Center
NG ....................... Nixson Gym
PBI ....................... Business & Industry Center
Building Abbreviations

ABC ........ Amarillo Bible Chair
BBC ........ Baptist Bible Chair
BCS ........ Bible Chair of the Southwest
BIOL ........ Biological Sciences
BUSI .......... Business Building
CFC ........ Carter Fitness Center
CHT ........ Concert Hall/Theater
CUB ........ College Union Building
DURR .... Durrett Hall
ENGR .... Engineering Building
EXTH .... Experimental Theatre
FMC ........ Facilities Management Center
GBC .... Gilvin Broadcast Center
LIB .......... Lynn Library
MB .......... Music Building
MOA .... Museum of Art
ORDW .... Ordway Hall
PARC .... Parcells Hall
RUSS .... Russell Hall
SSC .... Student Service Center
WARR .... Warren Hall
West Campus

BUILDING ABBREVIATIONS
CDL..........................Child Development Lab
A.............................A Building
AH..........................Allied Health
B............................B Building
C............................C Building
D............................D Building
GD..........................Gym/Dance
LH..........................Lecture Hall
# Index

<table>
<thead>
<tr>
<th>Academic Policies and Information</th>
<th>28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Freedom for Students</td>
<td>28</td>
</tr>
<tr>
<td>Academic Standing</td>
<td>28</td>
</tr>
<tr>
<td>Academic Probation</td>
<td>29</td>
</tr>
<tr>
<td>Academic Suspension</td>
<td>29</td>
</tr>
<tr>
<td>Academic Support Services</td>
<td>29</td>
</tr>
<tr>
<td>Advising and Counseling Services</td>
<td>29</td>
</tr>
<tr>
<td>Amarillo College Library</td>
<td>34</td>
</tr>
<tr>
<td>Attendance</td>
<td>30</td>
</tr>
<tr>
<td>Class Cancellations</td>
<td>30</td>
</tr>
<tr>
<td>Credits</td>
<td>31</td>
</tr>
<tr>
<td>Distance Education</td>
<td>32</td>
</tr>
<tr>
<td>Evening and Weekend Classes</td>
<td>32</td>
</tr>
<tr>
<td>Final Examinations</td>
<td>32</td>
</tr>
<tr>
<td>Grades and Reports</td>
<td>32</td>
</tr>
<tr>
<td>Guarantee for Job Competency</td>
<td>33</td>
</tr>
<tr>
<td>Honors</td>
<td>33</td>
</tr>
<tr>
<td>Police Department</td>
<td>33</td>
</tr>
<tr>
<td>Student Responsibilities</td>
<td>34</td>
</tr>
<tr>
<td>Testing Services</td>
<td>33</td>
</tr>
<tr>
<td>Transcripts</td>
<td>34</td>
</tr>
<tr>
<td>Transfer</td>
<td>34</td>
</tr>
<tr>
<td>Admissions</td>
<td>9</td>
</tr>
<tr>
<td>Academic Advising</td>
<td>13</td>
</tr>
<tr>
<td>Admission Requirements</td>
<td>11</td>
</tr>
<tr>
<td>Auditing a Course</td>
<td>13</td>
</tr>
<tr>
<td>Changing Course Status</td>
<td>13</td>
</tr>
<tr>
<td>New Student Orientation</td>
<td>11</td>
</tr>
<tr>
<td>Preparation</td>
<td>9</td>
</tr>
<tr>
<td>Specific Admission Procedures</td>
<td>12</td>
</tr>
<tr>
<td>Testing</td>
<td>9</td>
</tr>
<tr>
<td>An Overview</td>
<td>6</td>
</tr>
<tr>
<td>Accreditations</td>
<td>7</td>
</tr>
<tr>
<td>Advantages</td>
<td>6</td>
</tr>
<tr>
<td>Board of Regents</td>
<td>7</td>
</tr>
<tr>
<td>Central Administration</td>
<td>7</td>
</tr>
<tr>
<td>Goals</td>
<td>6</td>
</tr>
<tr>
<td>History</td>
<td>6</td>
</tr>
<tr>
<td>Legislation</td>
<td>7</td>
</tr>
<tr>
<td>Mission</td>
<td>6</td>
</tr>
<tr>
<td>The AC Foundation, Inc.</td>
<td>8</td>
</tr>
<tr>
<td>Approved Majors</td>
<td>189</td>
</tr>
<tr>
<td>Calendar</td>
<td>4</td>
</tr>
<tr>
<td>Campus Maps</td>
<td>182</td>
</tr>
<tr>
<td>East Campus</td>
<td>182</td>
</tr>
<tr>
<td>Moore County Campus</td>
<td>183</td>
</tr>
<tr>
<td>Polk Street Campus</td>
<td>183</td>
</tr>
<tr>
<td>Washington Street Campus</td>
<td>184</td>
</tr>
<tr>
<td>West Campus</td>
<td>184</td>
</tr>
<tr>
<td>Course Description</td>
<td>98</td>
</tr>
<tr>
<td>Accounting</td>
<td>98</td>
</tr>
<tr>
<td>Allied Health</td>
<td>99</td>
</tr>
<tr>
<td>Anthropology</td>
<td>99</td>
</tr>
<tr>
<td>Architecture</td>
<td>99</td>
</tr>
<tr>
<td>Art</td>
<td>99</td>
</tr>
<tr>
<td>Art - Graphic Design</td>
<td>100</td>
</tr>
</tbody>
</table>
Approved Majors

Admission will be on a conditional basis until the following items are on file in the Registrar’s Office:
• Application of Admission
• Official Transcript
  If a first-time student, an official transcript of the student’s record in high school. If student has attended any other college or university, an official transcript from each.

Admission to Health-Related Programs: In addition to the general Amarillo College admission requirements, students desiring to enter any health-occupation major must complete additional application requirements as set forth in the individual program handbooks. These should be consulted prior to making application.

Approved Majors: In response to the question “What is your intended field of study (major/program)l?” on the application form, please indicate the major you desire to pursue or the one which most nearly corresponds to your preference at Amarillo College. If you have not selected a major, indicate “General Studies-GENS.AS”.

Approved Majors — Major Code
Accounting Associate (AAS) — ACNT.AAS
Accounting Associate Cert. — ACNT.CERT
Advertising and Public Relations (Mass Communication) (AS) — COMM.AS.MCOMM
Aerospace Manufacturing (Aviation Maintenance Technology) — AERM.CERT.AERO
Airframe Mechanic (Aviation) Cert. — AERM.CERT.AM
Art (AS) — ARTS.AS
Art - Graphic Design (AAS) — ARTC.AAS
Art - Graphic Design Cert. — ARTC.CERT.GD
AS/400 Application Development (Computer Information Systems) (AAS) — COSC.AAS.AS400
Autocad Specialist-Drafting-DFTG.CERT.CAD
Automotive Collision Technology — ABDR.CERT.ABRT
Automotive Technology (AAS) — AUMT.AAS
Aviation Maintenance Technology (AAS) — AERM.AAS
Aviation Maintenance Tech. - General Cert. — AERM.CERT.GEN
Biology (AS) — BIOL.AS
Biototechnology (AS) — BIOT.AS
Business Administration (AS) — BUSI.AS
Business Administration (Computer Information Systems) — BUSI.AS.CIS
Business Computer Specialist (Computer Information Systems) (AAS) — COSC.AAS.MICRO
Cathodic Protection Technician (Instrument and Control Technology) — INTC.CERT.CATH
Chassis and Body (Automotive) Cert. — AUMT.CERT.CHSS
Chemistry (AS) — CHEM.AS
Child Development/Early Childhood Administrator Cert. — CDEC.CERT.ADMIN
Child Development/Early Childhood (AAS) — CDEC.AAS
Child Development - CDA Credential Cert. — CDEC.SHCT.CDA
Child Development/Early Childhood Provider Cert. — CDEC.CERT.PRVD
Child Development/Early Childhood Provider Cert. - CDEC Paraprofessional — CDEC.CERT.PARA
Computer Information Systems Cert. — COSC.CERT
Computer Programming (Computer Information Systems) (AAS) — COSC.AAS.SYSPR
Convenience Store Management (Management- Business Management) Cert. — BMGT.CERT.CSM
Convenience Store Management Short-Term (Management - Business Management) Cert. — BMGT.SHCT.CNVS
Criminal Justice (AS) — CJLE.AS
Criminal Justice Corrections (AAS) — CJLE.AAS.CORR
Amarillo College

Instructional Divisions

Student and Academic Development ........................................... (806) 371-5431
Allied Health ........................................................................... (806) 354-6055
Behavioral Studies ................................................................... (806) 371-5296
Business .................................................................................. (806) 371-5269
Criminal Justice ....................................................................... (806) 354-6081
Industrial and Transportation Technologies ........................... (806) 335-4201
Language, Communication & Fine Arts ................................. (806) 371-5267
Nursing .................................................................................... (806) 354-6010
Sciences & Engineering ............................................................ (806) 371-5092

Other Important Numbers

START Center .......................................................................... (806) 371-5175
Advising and Counseling ........................................................... (806) 371-5440
Financial Aid ............................................................................ (806) 371-5310
Registrar .................................................................................. (806) 371-5030
Testing ...................................................................................... (806) 371-5445