GENERAL INFORMATION
San Jacinto Community College District
  Vision, Mission, and Values...............................................4
  Vision..............................................................................4
  Mission..........................................................................4
  Values............................................................................4
  Accreditation................................................................5
  Equal Opportunity Statement..........................................5
  Academic Calendar............................................................5
  Annual Security and Fire Safety Report................3

ADMISSIONS
Steps to Enrollment........................................................................6
Getting Started..................................................................................6
  Completing the Online Application for Admission.........................7
  Transcripts for Admission..........................................................7
  Fresh Start for Courses at San Jacinto College.................................7
  Admission Types........................................................................7
  High School Graduates...............................................................7
  General Educational Development (GED) Graduates........................7
  College or University Transfer......................................................8
  Individual Approval-Not A High School Graduate Or Not Currently
  Enrolled In High School...........................................................8
  Dual Credit/Early Admission.........................................................8

Early College Programs....................................................................10
  Modified Early College Academy (MECA)-North Campus..................10
  Clear Horizons Early College High School-South Campus .................10
  Pasadena Early College High School-Central Campus.........................10
  Sheldon Early College High School-North Campus..............................10
  Galena Park Career and Technical Education Early College
  High School...........................................................................11

International Student Admission.....................................................11
  F-1 Visa Initial Applicants......................................................11
  F-1 Visa Holders Transfer Applicants...........................................11
  Admission Requirements For Individuals With Other Types
  Of Visas..............................................................................12
  Admission Requirements for Non-U.S. Citizens and Students
  with no current Visa Status......................................................12

ENGLISH LANGUAGE PROFICIENCY REQUIREMENTS FOR STUDENTS WHO ARE
SPEAKERS OF OTHER LANGUAGES.............................................12

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL) PROGRAM........13
  Accuplacer ESL Testing Requirement...........................................13
  ESOL Program Admission Types..................................................13

TESTING
Texas Success Initiative....................................................................14
  Texas Success Initiative (TSI) College Preparatory..........................14
  Exemptions from the Texas Success Initiative................................14
  Partial Exemption Based on SAT, ACT, TAKS, STAAR.........................15
  Waived Certificate Programs......................................................15
  TSI Requirements Deferred for Students Who are not Seeking a
  Degree or Certificate................................................................15
  Skills Prerequisites....................................................................15
  Advising – College Preparatory Studies...........................................15
  Meeting the Requirements of the Texas Success Initiative..................15
  Student Initiated Withdrawal from Required College Preparatory
  Studies..................................................................................15
  Texas Success Initiative Assessment (TSIA)......................................15
  College Preparatory Courses.........................................................16

Student Success Initiative..................................................................16
  Students Enrolling in College for the first time Fall 2012
  or Thereafter...........................................................................16
  Exceptions to the Student Success Initiative Requirement.................16

Testing............................................................................................17
  ESL Testing...............................................................................17
  General Educational Development or GED.................................17

Placement Chart.............................................................................18

REGISTRATION
Web Registration-Secure Online System (SOS)...............................19
  Course Finder...........................................................................19
  Schedule Disclaimer....................................................................19
  Course Load..............................................................................19
  Enrolling at Multiple Campuses.................................................20
  Parts of Term............................................................................20
  University Transfer.....................................................................20
  Concurrent Enrollment...............................................................20
  Prerequisites or Co-requisites......................................................20
  Repetition of Courses..................................................................20
  Schedule Changes.......................................................................20
  Class Change Fees.....................................................................21
  Late Registration Policy.............................................................21
  Dropping Courses......................................................................21
  Complete Withdrawal from College or Dropping All Courses...........21
  Withdrawal Deadlines..................................................................21
  Six-Drop Limit Provisions (TEC 51.907).......................................21
  Class Attendance.......................................................................22
  Auditing a Course......................................................................22
  Senior Citizens Enrolling in Classes............................................22

RESIDENCY
  Residence Status for Tuition Purposes.........................................23
  Relevant Definition.....................................................................23
  Texas Resident.........................................................................23
  Non-Texas Resident...................................................................24
  Military Personnel......................................................................24

TUITION AND FEES
  Texas Resident Tuition Rate (TOD) (Out of District).........................25
  Estimated Texas Resident Tuition Rate Student Expenses ...............25
  Texas Resident Reduced Tuition and Fees (TID) (In-District)...........25
  Estimated Texas Resident Tuition Rate Student Expenses.............25
  Tuition and Fee Schedules........................................................25
  Out-of-State and Other Non-Resident Tuition and Fees
  (TOS, TIS, TUV)...................................................................26
  Non-Texas Resident Estimated Student Expenses..........................26
  Additional Expenses...............................................................26
  Fees Per Term..........................................................................26
  Course and/or Other Incidental Fees Required for Specific Courses
  Lab Fees...................................................................................28
  Excess Credit Hours for Undergraduate Students (30-Hour Rule)......30
  Repeated Courses and Unfunded Credit Hours...............................30
  Tuition Rebate Program...........................................................30

PAYING FOR COLLEGE
  Pay as You Go! Important Information Regarding Payment Deadline
  For Classes.............................................................................31
  Balance Must Equal Zero.........................................................31
  Methods of Payment...............................................................31
  Installment Payment Plan (IPP)..................................................32
  Credit Card Account Verification – Authorization..........................32
  Delinquent Accounts..............................................................32
  Refund Policy..........................................................................32
  Credit Refunds or Financial Aid Disbursements-Payments to
  Students................................................................................33
  Course Withdrawal / Dropping Courses......................................33

www.sanjac.edu
San Jacinto Community College District

San Jacinto Community College District is a public community college in East Harris County, Texas, which serves a district defined by the combined areas of these independent school districts: Channelview, Deer Park, Galena Park, La Porte, Pasadena and Sheldon, as well as portions of Clear Creek and Humble.

San Jacinto Community College District
Vision, Mission, and Values

Vision
San Jacinto College will be the leader in educational excellence and in the achievement of equity among diverse populations. We will empower students to achieve their goals, redefine their expectations, and encourage their exploration of new opportunities. Our passions are people, learning, innovation, and continuous improvement.

Our Mission
Our mission is to ensure student success, create seamless transitions, and enrich the quality of life in the communities we serve.

Values
Approved by the Board of Trustees on June 2, 2008

Integrity: Ethical and Professional
“We act in ways which instill confidence and trust.”

Excellence: In Everything We Do
“We achieve quality results in everything we do.”

Accountability: It’s Up to Us
“We take responsibility for our commitments and outcomes.”

Innovation: Lead the Way
“We apply our knowledge, skill, insight, and imagination to recognize opportunities, solve problems, and recommend new solutions.”

Sense of Community: Caring for Those We Serve and Ourselves
“We demonstrate genuine concern for the well-being of our students, our community and ourselves.”

Student Success: Our Ultimate Measure
“We enable students to achieve their goals.”

Diversity: Celebrate the Differences
“We celebrate the diversity of ideas and cultures.”

Collaboration: We Work Together
“We work together for the benefit of the college.”
**Accreditation**

The San Jacinto Community College District is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of The San Jacinto Community College District.

**Equal Opportunity Statement**

The San Jacinto College District is committed to equal employment opportunity for all employees and applicants without regard to race, creed, color, national origin, citizenship status, age, disability, pregnancy, religion, gender, sexual orientation, gender expression or identity, genetic information, marital status, or veteran status in accordance with applicable federal and state laws. No person including students, faculty, staff, part-time, and temporary workers will be excluded from participation in, denied the benefits of, or be subjected to discrimination or harassment under any program or activity sponsored or conducted by the San Jacinto College District on the basis of the categories listed.

The following College officials have been designated to handle inquiries regarding the College’s non-discrimination policies:

**Interim Vice President of Student Services**
**Joanna Zimmermann** (students) - Co-Lead Title IX Coordinator
8060 Spencer Hwy.
Pasadena, TX 77505
joanna.zimmermann@sjcd.edu
281-476-1863

**Vice President of Human Resources**
**Sandra Ramirez** (employees) - Co-Lead Title IX Coordinator
4620 Fairmont Pkwy.
Pasadena, TX 77504
sandra.ramirez@sjcd.edu
281-991-2648

**Vice Chancellor of Strategic Initiatives**
**Allatia Harris** (equity in athletics)
8060 Spencer Hwy.
Pasadena, TX 77505
allatia.harris@sjcd.edu
281-459-7140

**Academic Calendar**

Please refer to the San Jacinto College website link below for the most recent academic calendar.

[www.sanjac.edu/academic-calendar](http://www.sanjac.edu/academic-calendar)
Steps to Enrollment

San Jacinto College is an open admission institution, and all students are welcome. We are committed to meeting the needs of all applicants and will provide any information necessary to make sure the admissions process is clear and concise.

Getting Started

Listed below is an overview of steps to follow to get started at San Jacinto College.

1. **Application**- Apply online at www.sanjac.edu/apply or use the Apply Texas website at www.applytexas.org/. There is no charge to apply.

   **Veterans ONLY**- Students who plan to use VA benefits need to complete the admission application and then visit the Veterans Center located on their campus.

   **International Students ONLY**- Must contact the Enrollment Services Office or view the website at http://www.sanjac.edu/international-students to obtain the International Student Application packet.

2. **Placement Testing**- Meet with an educational planner/ counselor to determine testing needed for enrollment.

   *Note:* Prior to registering for classes, students must provide information to document their Texas Success Initiative (TSI) exemption or compliance. This can be done by testing on campus, providing official test scores, or documentation of exemption (see section titled Exemptions from the Texas Success Initiative).

   English proficiency is required for individuals whose native language is not English. Speak with an educational planner/ counselor for additional testing requirements and a list of exempt countries. San Jacinto College offers classes for students who are not English proficient.

3. **Transcripts**- Request all official transcripts from high school and/or all colleges attended. Send or bring official transcripts, unopened, to an Enrollment Services Office.

   **GED**- Verify Texas GED completion with the Enrollment Services Office. GED transcripts from out of state must be obtained from the state of origin by the student.

   **Foreign transcripts**- Documents must be evaluated by an approved evaluation agency. See Enrollment Services Office for approved list or view the list at www.sanjac.edu/apply-register/types-admissions/international-students/frequently-asked-questions.

   **Evaluation**- To request an evaluation of U.S. college transcripts, please call 281-998-6150 or contact your campus Enrollment Services Office for credit to transfer and/or for financial aid purposes. All transcripts must be received and on file by San Jacinto College before the Transcript Evaluation Form may be submitted.

4. **Meningitis Vaccination Required**- The Texas Legislature requires that all incoming Texas college students, under the age of 22, must receive a vaccination or booster against bacterial meningitis prior to registration. The vaccine is required for all new students to San Jacinto College, including transfer students, and for returning San Jacinto College students who have had a break in enrollment for one or more Fall or Spring semesters. Documentation should be provided to your campus Enrollment Services Office, faxed to 281-669-4720, or scanned and emailed to meningitis.docs@sjcd.edu. For additional information on this requirement visit our website at www.sanjac.edu/meningitis.

5. **Academic Advising**- Meet with an educational planner/ counselor to discuss test results, life and career goals, create an educational plan and select courses.

6. **Orientation**- It is mandatory for all first-time-in-college students to attend orientation. After you have been fully accepted, sign up for New Student Orientation through the Secure Online System (SOS) at www.sanjac.edu/soslogin.

7. **Financial Aid and Scholarships**- Complete the FAFSA form online at www.fafsa.gov and contact the campus Financial Aid office with questions. Scholarship information is available at www.sanjac.edu/san-jacinto-college/scholarships-

8. **Register and pay for classes**- Login to SOS at www.sanjac.edu/soslogin. Payment plans are available. Information is available at www.sanjac.edu/payments or call 281-998-6150 with any questions.

9. **Student ID**- Go to the Enrollment Services Office after you have paid for your first semester of classes to get a free ID card.

10. **Parking Permit**- A parking permit must be displayed on each automobile parked on any San Jacinto College campus by a student or for the benefit of a student. Parking permits are available in the Business Office at no additional cost. Students will fill out a brief application and will need their vehicle license plate number(s). A current student ID card or state issued picture ID is required to receive a parking permit. A fine will be imposed on any student who fails to comply with parking regulations.

11. **San Jac email address**- Go to www.sanjac.edu/email to set up an official San Jac email account. Official communication from the College to the student is sent through this email account.

12. **Disability Services**- Accommodations are available to students with documented disabilities attending San Jacinto College. If you have a disability and would like to apply for accommodations, please contact the Disability Services Counselor at the campus you plan to take your classes:

   Central Campus 281-998-6150 ext. 1014
   North Campus 281-998-6150 ext. 2317
   South Campus 281-998-6150 ext. 3444
Completing the Online Application for Admission

Applicants must complete the online application for admission. During the application process students will be asked questions about their name, home/current address, mailing address, personal information, program of study (major), high school information, any previous colleges attended and degrees awarded, and residency. Students must also acknowledge that they have read and answered accurately all areas of the application.

The application must be complete and submitted before it can be processed. The application will be processed within 48 business hours after it is submitted. To be sure that the application has been received students must see the confirmation notice that appears after submitting the application. After it is processed, students will receive information sent to the email address they submitted on the application. The information in the email is extremely important and students must read and comply with any instructions or requests.

Admission is invalid if granted on the basis of incorrect information, omitted facts, or falsified documents which, if known, would have caused the applicant to be ineligible for admission or financial aid. These actions may result in disciplinary action.

Transcripts for Admission

Students are required to submit all official high school and/or college transcripts. Transcripts are considered official only when they bear the signature of the registrar or some other appropriate school official, the seal of the issuing school, and are mailed or submitted from the sending institution. Transcripts are also considered official if hand-carried in a sealed envelope from the institution and submitted within 60 days of issue.

Transcripts become the property of San Jacinto College and cannot be returned to the student. Transcripts will be kept on file for 90 days after the end of the term in which the transcript was received and will be destroyed if the student has not enrolled.

Evaluation of Transcripts for Transfer Students

Upon request the College will conduct a course-by-course evaluation of official transcripts from regionally accredited colleges and universities for students. To request an evaluation, please call 281-998-6150 or contact your campus Enrollment Services Office. All transcripts must be received and on file with the College before the Transcript Evaluation Form is submitted. When the evaluation is completed the student will be notified via their San Jacinto College email account after which the equivalent courses may be viewed by going to SOS, then clicking Student Records, and then clicking Unofficial Transcript.

Credit from transfer institutions on quarter hours will be evaluated using a ratio of .667 quarter hours to 1 semester hour. Credit from transfer institutions on other calendar types will be evaluated using an appropriate ratio.

Evaluation of Transcripts from Other Countries

Transcripts that reflect completed course work from colleges or universities in other countries must, at the student’s expense, be analyzed by a professional evaluation service. For a list of pre-approved agencies, contact the campus Enrollment Services Office or view the list at www.sanjac.edu/apply-register/types-admissions/international-students/frequently-asked-questions.

The evaluation will be reviewed upon request by the College for acceptance before credit will be posted. Course work completed in a language other than English will be given generic credit only. Equivalency will need to be determined at the department level.

Academic Fresh Start for Courses at San Jacinto College

Under the provisions of TEC §51.931, an applicant for readmission may elect an Academic Fresh Start at the time of admission. An applicant who applies under this section and is admitted as a student may not receive any course credit for courses taken 10 or more years prior to enrollment under this section. Check with the Enrollment Services Office or Educational Planning and Counseling Office for more detailed information.

Financial aid applicants should contact the Financial Aid office before selecting Academic Fresh Start. Veterans should contact the Veterans Center before selecting Academic Fresh Start.

Admission Types

San Jacinto College recognizes four types of admission:

- High school graduate
- General Educational Development (GED) graduate
- College or university transfer
- Individual approval

Note: Some programs of instruction may have special requirements in addition to those normally required for admission to the College.

High School Graduate

To be admitted as a high school graduate, students must submit an official high school transcript verifying the date of graduation.

General Educational Development (GED) Graduate

To be admitted as a GED graduate, students must provide an official GED certificate (English or Spanish version) indicating that they have passed all parts of the GED. Students who have passed the GED in Texas may contact the Enrollment Services Office to obtain their GED results. GED transcripts from out of state must be obtained from the state of origin by the student.

Students who take the Spanish GED will be required to show proof of English language proficiency.
If students have not passed all parts of the GED, they will need to see the Individual Approval section.

*See Testing Department for GED exam information.

**College or University Transfer**

Students may be admitted by transfer from another accredited college or university if they are eligible to re-enroll at the last institution attended. A transfer student must submit an official transcript from each college or university previously attended.

Students who hold a degree (associate, bachelor’s, master’s, or doctoral) may submit only an official transcript from the school that awarded the highest degree and an official transcript with any course work taken after the degree was received. However, if students are applying for financial aid they must submit all official transcripts. If students are using course work to satisfy course prerequisites they must submit an official transcript to document all course work.

**Transfer Academic Status**

A student’s academic status during the most recent term of enrollment at another college or university determines the academic status under which the student is admitted. A student in good standing at the previous school will be admitted in good standing. A student on academic probation at another institution will be admitted on academic probation and should see the Academic Probation and Suspension Table. A student on academic suspension, whose suspension period is over, may be admitted on academic probation and should see the Re-enrollment After Suspension section of this catalog.

A transfer student who is admitted on academic probation must earn at least a 2.0 grade point average to achieve an academic status of good standing.

A transfer student on academic suspension whose suspension period has not passed should see the Transfer Students on Probation or Suspension section.

Students are responsible for knowing if their academic status entitles them to admission. If a student is not eligible to enroll but succeeds in enrolling anyway, he or she may be withdrawn and have to forfeit all tuition and fees.

**Individual Approval—Not A High School Graduate Or Not Currently Enrolled In High School**

**Conditional Admission—Extenuating Circumstances**

Students who are not high school graduates, or the equivalent, will be admitted on a conditional basis for one term. Please note conditions:

1. Students must seek unconditional admission through one of the following avenues:
   a. Enroll in appropriate college preparatory courses.
   b. Take and pass all sections of the GED.
   c. Complete high school graduation requirements.

2. Must maintain good academic standing for continued enrollment. (See the Probation and Suspension Table)

3. Must meet with an enrollment services coordinator to determine continued eligibility for enrollment.

**Provisional Admission**

A student who is not a high school graduate or the equivalent, and over the age of 18, may be provisionally admitted under the following conditions:

1. Student has test scores in reading, writing and math at a level 6 or higher, OR

2. A student has a grade of D or higher in at least 6 college level credit hours. College level does not include college preparatory or CPD courses.

Students placed under Provisional Admission should note the following circumstances regarding their admission:

1. This is an unconditional admission status.
2. Student is eligible for graduation.
3. Student is not eligible for financial aid.
4. Student is not required to meet each semester with an advisor.
5. Student is not required to complete the GED.

**Dual Credit/Early Admission**

**Dual Credit/Early Admission (Conditional Admission Prior to High School Graduation)**

San Jacinto College conditionally admits high school students and allows them to enroll concurrently in college courses. Those students must meet the following conditions.

**Students Classified as Juniors and Seniors Enrolled in High School**

Students who are enrolled in high school and are classified as juniors or seniors may be admitted to the College on a dual credit/early admission basis for concurrent enrollment, if they (1) submit an admission application; (2) submit a signed enrollment form from their high school principal or designee; (3) submit test scores to meet TSI testing requirements; (4) submit proof of meeting Texas meningitis requirements.

1. Students enrolling in a degree program must meet TSI assessment requirements. Submit TSIA scores or provide proof of exemption from the TSIA based on appropriate ACT or SAT scores. See the Exemptions from the Texas Success Initiative section. If the student seeks enrollment in a course requiring a designated skill prerequisite, the student must submit a passing TSIA score on the section which relates to the designated skill prerequisite. If the
course has no designated skill prerequisite, the student must still submit a passing score on one section of the TSIA.

2. Eleventh-grade students are also eligible to enroll in dual credit courses based on the following table.

<table>
<thead>
<tr>
<th>Courses that require reading/writing TSI complete:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• If the student achieves a Level 2 final recommended score, as defined by the Texas Education Agency (TEA), on the English II State of Texas Assessment of Academic Readiness End of Course (STAAR EOC); or</td>
</tr>
<tr>
<td>• If the student achieves a combined score of 107 on the PSAT with a minimum of 50 on the reading test; or</td>
</tr>
<tr>
<td>• If the student achieves a composite score of 23 on the PLAN with a 19 or higher in English or an equivalent score on the ACT-Aspire as determined by ACT.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Courses that require mathematics TSI complete:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• If the student achieves a Level 2 final recommended score, as defined by TEA, on the Algebra I STAAR EOC and passing grade (defined as 70 or higher) in the Algebra II course; or</td>
</tr>
<tr>
<td>• If the student achieves a Level 2 final recommended score, as defined by TEA, on the Algebra II STAAR EOC; or</td>
</tr>
<tr>
<td>• If the student achieves a combined score of 107 on the PSAT with a minimum of 50 on the mathematics test; or</td>
</tr>
<tr>
<td>• If the student achieves a composite score of 23 on the PLAN with a 19 or higher in mathematics or an equivalent score on the ACT-Aspire as determined by ACT.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test</th>
<th>Composite Score</th>
<th>Minimum English Critical Reading</th>
<th>Minimum Math</th>
<th>Expiration of Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSAT</td>
<td>107*</td>
<td>50</td>
<td>50</td>
<td>Valid only for students beginning dual credit in grade 11; grade of C or better in college courses required to continue waiver to grade 12; waiver expires at the end of grade 12.</td>
</tr>
<tr>
<td>PLAN</td>
<td>23*</td>
<td>19</td>
<td>19</td>
<td>Valid only for students beginning dual credit in grade 11; grade of C or better in college courses required to continue waiver to grade 12; waiver expires at the end of grade 12.</td>
</tr>
<tr>
<td>STARR (EOC)</td>
<td>0</td>
<td>Level 2 (final recommended score as defined by the Texas Education Agency) on English II EOC</td>
<td>Level 2 (final recommended score as defined by the Texas Education Agency) on Algebra I EOC and a passing course grade in Algebra II</td>
<td>Valid only for students beginning dual credit in grade 11; waiver expires at the end of grade 12.</td>
</tr>
</tbody>
</table>

*Composite scores must be met first before individual Math and English/Critical Reading score is met.

*Note: The PLAN is the Pre-ACT test, just as the PSAT is the Pre-SAT test.

An eligible high school student who enrolls in a dual credit course requiring TSI completion in reading, writing, or mathematics during their junior year under the STAAR EOC provisions shall not be required to demonstrate further evidence of eligibility to enroll in dual credit courses in the 12th grade.

An eligible high school student who enrolls in a dual credit course requiring TSI completion in reading, writing, or mathematics during their junior year under the PSAT, PLAN, or Aspire provisions and earns a grade of C or better has demonstrated eligibility to enroll in dual credit courses in the 12th grade.

An eligible high school student who enrolls in a dual credit course requiring TSI completion in reading, writing, or mathematics during their junior year under the PSAT, PLAN, or Aspire provisions and does not earn a grade of C or better must demonstrate eligibility to enroll in dual credit courses in the twelfth grade.

These students are also subject to the guidelines in the Conditions of Dual Credit/Early Admission Enrollment for High School Students section.
Conditions of Individual Approval/Dual Credit/Early Admission

Enrollment for High School Students

High school students may be admitted for dual credit/early admission enrollment under the following conditions:

1. High school students shall not be enrolled in more than two dual credit courses per term. Exceptions to this requirement are made for students whose outstanding academic performance and capability (as evidenced by grade point average, ACT or SAT scores or other assessment indicators) may be approved by the principal or designee of the high school and the provost at the College.

2. To continue enrollment in college-level classes, students must meet the current academic standing rules of San Jacinto Community College District. See Academic Probation and Suspension Table section.

3. Students may not enroll in courses for which they have not complied with TSI or met the course or skill prerequisites.

4. The College will release official transcripts of students admitted on an early admission basis through their expected graduation date. After that date, the final high school transcript indicating graduation must be submitted before additional official transcripts will be released.

5. Because any form of early admission is conditional, the College may impose additional limitations and requirements.

Students having less than junior year high school standing may be admitted under certain circumstances. Contact the appropriate Dual Credit office for more information.

Early College Programs

Modified Early College Academy (MECA)-North Campus

Modified Early College Academy (MECA) is a two-year program for incoming high school freshmen at the North Campus who have successfully completed Pre-AP Algebra II by the end of their sophomore year. Students in this program take four college courses each semester. In order to complete an associate degree, additional course work is required. Courses can be completed in summer or mini terms or by taking evening or online classes. Students enrolling in college-level courses as part of this program must meet the following requirements to be admitted for concurrent enrollment.

1. Submit a San Jacinto College admission application.
2. Submit official scores on TSI approved assessment test.
3. Meet the current academic standing rules of San Jacinto College to continue enrollment in college-level courses.
4. Submit proof of current bacterial meningitis vaccination.

Clear Horizons Early College High School-South Campus

Clear Horizons Early College High School (CHECHS) is a partnership between San Jacinto College and Clear Creek Independent School District (CCISD) at the South Campus. Participants in the program are chosen by a selection process established by CHECHS. Students classified as high school freshmen, sophomores, juniors, and seniors enrolling in college-level courses as part of this program must meet the following requirements to be admitted for concurrent enrollment.

1. Submit a San Jacinto College admission application.
2. Submit official scores on TSI approved assessment test.
3. Meet the current academic standing rules of San Jacinto College to continue enrollment in college-level courses.
4. Submit proof of current bacterial meningitis vaccination.

Pasadena Early College High School-Central Campus

Pasadena Early College High School (PECHS) is a partnership between San Jacinto College and Pasadena Independent School District (PISD). PECHS is housed at Pasadena High School (PHS). Ninth and 10th-grade students attend high school and college classes at PHS. Eleventh and 12th-grade students attend college courses at the San Jacinto College Central Campus. Participants in the program entering in their 9th-grade year are chosen by a selection process established by PECHS. Students classified as high school freshmen, sophomores, juniors, and seniors enrolling in college-level courses as part of this program must meet the following requirements to be admitted for concurrent enrollment.

1. Submit a San Jacinto College admission application.
2. Submit official scores on TSI approved assessment test.
3. Meet the current academic standing rules of San Jacinto College to continue enrollment in college-level courses.
4. Submit proof of current bacterial meningitis vaccination.

Sheldon Early College High School-North Campus

Sheldon Early College High School (SECHS) is a partnership between San Jacinto College and Sheldon Independent School District (SISD). SECHS is housed at C. E. King High School. Ninth and 10th-grade students attend high school and college classes at SECHS. Eleventh and 12th-grade students attend college courses at San Jacinto College North Campus. Participants in the program entering in their 9th-grade year are chosen by a selection process established by SECHS. Students classified as high school freshmen, sophomores, juniors, and seniors enrolling in college-level courses as part of this program must meet the following requirements to be admitted for concurrent enrollment:

1. Submit a San Jacinto College admission application.
2. Submit official scores on TSI approved assessment test.

3. Meet the current academic standing rules of San Jacinto College to continue enrollment in college-level courses.

4. Submit proof of bacterial meningitis vaccination.

Galena Park Career and Technical Education Early College High School

Galena Park Career and Technical Education Early College High School (GP CTE ECHS) is a partnership between San Jacinto College and Galena Park Independent School District (GPISD) at the North Campus. Participants in the program are chosen by a selection process established by GP CTE ECHS. Students classified as high school freshmen, sophomores, juniors, and seniors enrolling in college-level courses as part of this program must meet the following requirements to be admitted for concurrent enrollment.

1. Submit a San Jacinto College admission application.
2. Submit official scores on TSI approved assessment test.
3. Meet the current academic standing rules of San Jacinto College to continue enrollment in college-level courses.
4. Submit proof of current bacterial meningitis vaccination.

Information on other dual credit programs is available on each of the San Jacinto College campuses in the dual credit offices. See www.sanjac.edu/dual-credit.

International Student Admission

F-1 Visa Initial Applicants

San Jacinto College is authorized under federal law to enroll non-immigrant students.

International students residing outside the United States may be admitted to San Jacinto College and issued the US Citizenship and Immigration Services (USCIS) Certificate of Eligibility (Form I-20) for F-1 Visa processing when all admission requirements have been met.

To complete the admission process, students must do the following:

1. Complete online application for admission.
2. Complete application for an I-20.
3. Have all secondary and college transcripts evaluated. The evaluation must show a secondary education that is equivalent to a U.S. high school diploma. Students must submit official secondary school records and/or college/university transcripts to be evaluated by an approved foreign transcript evaluation agency. For a list of approved agencies, contact the Enrollment Services Office or visit www.sanjac.edu/international-students for more information.
4. Provide proof of financial ability. Students must have a Notarized Affidavit of Support from a dependable source that will provide funds for a minimum amount of U.S. $23,484 for the student’s first year of study, and provide proof that adequate funding will be available for subsequent years. This amount increases by U.S. $6,000 for the first dependent and U.S. $3,500 for any additional dependents. Students are required to submit documentation of these funds and currency exchange rates (if applicable). Documentation of scholarships and fellowships may be in the form of an official award letter and personal or family funds should be on bank letterhead stationery.
5. Provide proof of English proficiency. Students must meet requirements as listed under English Language Proficiency Requirement for Students Who are Speakers of Other Languages section in this catalog. Students meeting English language proficiency may be required to test for college readiness in reading, writing, and math, unless exempt. See section on Testing.
6. Attend mandatory F1 regulation orientation.
7. Students must register full-time for courses in a specific degree plan to maintain F1 status.

A full-time course of study is 12 semester credit hours per term. Both Fall and Spring semesters constitute one academic year.

F-1 Visa Holders Transfer Applicants

International students who are transferring from another United States college or university must submit the ABOVE admission documents as well as the following items:

1. Visa, passport, and I-94 card.
2. All previous I-20s since initial entry into the United States.
3. Completed SEVIS Transfer Release Form. Must be filled out by the International Student Counselor/Advisor at the student's current institution.
4. Official transcripts from all United States schools attended.
5. All students must be counseled by the International Counselor before registration and must follow the agreed-upon degree plan.

Transfer students who are out of status must contact the International Student Counselor/DSO on the campus they wish to attend prior to admission.

Transfer students on academic suspension must apply for suspension appeal in the Educational Planning and Counseling Office at the campus they wish to attend prior to admission.

Transfer students admitted on academic probation must earn at least a 2.0 GPA to maintain good academic standing.
ADMISSIONS

Admission Requirements For Individuals With Other Types Of Visas

Students with other types of visas or non-immigrant status will be eligible for admission. To determine eligibility contact the Enrollment Services Office. Current B1/B2 visa holders are not eligible for admission under United States Department of Homeland Security regulations. (8 CFR 214.2(b)(7))

To be admitted, the student must:

1. Complete online application for admission.
2. Have all secondary and college transcripts evaluated. The evaluation must show a secondary education that is equivalent to a U.S. high school diploma. Students must submit official secondary school records and/or college/university transcripts to be evaluated by an approved foreign transcript evaluation agency. For a list of approved agencies, contact the Enrollment Services Office or visit www.sanjac.edu/international-students for more information.
3. Provide proof of English proficiency. Students must meet requirements as listed under English Language Proficiency Requirement for Students Who are Speakers of Other Languages section in this catalog. Students meeting English language proficiency may be required to test for college readiness in reading, writing, and math, unless exempt. See section on Testing.
4. Provide Visa, passport, and I-94 card, or applicable proof of residency document.

All students who are enrolling for the first time will be counseled into appropriate levels of English, mathematics and reading based upon their state-approved test scores.

See the Residence Status for Tuition Purposes section to determine residency classification.

Admission Requirements for Non U.S. Citizens and Students with no current Visa Status

Students who are not citizens of the United States and/or do not have a valid VISA status are eligible for admission.

English Language Proficiency Requirements For Students Who are Speakers Of Other Languages

Individuals who were born outside the United States and whose native language is not English, or those who have educational credentials from other countries or American protectorates, must satisfy an English proficiency requirement as a condition of enrollment.

For enrollment into course work, students must document that they satisfy the English language proficiency requirement by one of the following accepted testing methods:

TOEFL (Test of English as a Foreign Language), IELTS (International Language Testing System), Accuplacer ESL, or Exemptions (listed below).

A student may be admitted to the ESOL program with a minimum score of:

<table>
<thead>
<tr>
<th>Test</th>
<th>Minimum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOEFL</td>
<td>450 (Paper-Based Test), 45 (Internet-Based Test)</td>
</tr>
<tr>
<td>IELTS</td>
<td>Band 4 range</td>
</tr>
<tr>
<td>Accuplacer</td>
<td>ESL 57 (Reading); 51(Listening); 61 (Sentence Meaning); 4 (WritePlacer)</td>
</tr>
</tbody>
</table>

NOTE: Students who score below the ESOL levels can improve their English through the non-credit ESL program which is taught through our Continuing and Professional Development division. This option is not available to F1 students.

A student may be admitted to an academic program with a minimum score of:

<table>
<thead>
<tr>
<th>Test</th>
<th>Minimum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOEFL</td>
<td>525 (Paper-Based test), 70 (Internet-Based Test)</td>
</tr>
<tr>
<td>IELTS</td>
<td>Band 6 range</td>
</tr>
<tr>
<td>Accuplacer</td>
<td>ESL 102 (Reading); 90 (Listening); 100 (Sentence Meaning); 5+ (WritePlacer)</td>
</tr>
</tbody>
</table>

EXEMPTION from the English Language Proficiency Requirement may be granted due to:

Two years attendance and graduation from U.S. high school and/or successful completion of college level English from an accredited U.S. college or university.
Note: A waiver of this requirement is extended (but not limited) to native students of the following countries: Australia, The Bahamas, Belize, Bermuda, Botswana, Cameroon, Cayman Islands, English-speaking Canadian provinces, The Fiji Islands, Gambia, Ghana, Guyana, Ireland, Jamaica, Kenya, Liberia, Malta, Nauru, Nigeria, New Zealand, Sierra Leone, Singapore, Solomon Islands, South Africa, Sri Lanka, Tanzania, Tobago Trinidad, Uganda, United Kingdom, The Virgin Islands, the West Indies, Zambia, and Zimbabwe.

F1 Students:
F1 students required to enroll in the ESOL Program cannot fulfill the English Language Proficiency requirement by enrolling in Continuing and Professional Development (CPD) ESL/ESOL courses.

English for Speakers of Other Languages (ESOL) Program

The ESOL program is a credit program of developmental study designed to prepare non-English speakers for admission to college-level course work.

The ESOL program does not fall under the provisions of the TSI. In order to move from the ESOL developmental program and to enroll in college-credit courses, students must have the recommendation of the ESOL program director and/or must document that they have met the English language proficiency requirement and complete the state approved TSI assessment exam. See the section titled English Language Proficiency Requirement for Students Who are Speakers of other Languages. F1 students cannot enroll in Continuing and Professional Development (CPD) ESL/ESOL courses to fulfill English language proficiency.

Accuplacer ESL Testing Requirement

To be admitted to the ESOL program, all students must obtain the required minimum score of Accuplacer ESL 57 (Reading); 51 (Listening); 61 (Sentence Meaning); 4 (WritePlacer) and meet the requirements for one of the following types of admission. Students who cannot submit the minimum passing scores on one or two sections of the Accuplacer-ESL test may be admitted into the non-credit ESL courses sponsored through the Continuing and Professional Development office. Upon recommendation of the ESL program director, students may retest on the Accuplacer-ESL and reapply for admission to the ESOL program.

ESOL Program Admission Types

There are three types of admission into the credit ESOL program.

High School Graduation or the Equivalent
Students whose native language is not English and who have graduated from high schools outside the United States, or who have taken and passed all parts of any foreign language version of the GED test, are eligible for unconditional admission only into the ESOL program if they provide documentation of high school graduation or the equivalent and if they meet the Accuplacer ESL testing requirement.

Individual Approval (students who are not high school graduates or the equivalent and are 18 years old)
Students whose native language does not include English, who have not graduated from high school, or have not taken and passed all parts of any foreign language version of the GED test, are eligible for admission only into the ESOL program as individual approval students. These students must submit a minimum score of Accuplacer ESL 80 (Reading); 70 (Listening); 90 (Sentence Meaning); 4 (WritePlacer).

College or University Transfer Students
Students transferring to San Jacinto College from other colleges and universities, whose native language is not English, must document that they have met the English language proficiency requirements. Students who do not meet the English Proficiency Requirements are eligible for admission only to the ESOL program if they meet the Accuplacer-ESL testing requirements.
Testing

Texas Success Initiative

To use scores from any assessment other than the TSI, you must have a transcript from a regionally accredited college or university indicating complete course work. This includes a grade of W. Effective Aug 26, 2013, students must take the Texas Success Initiatives Assessment (TSIA).

Texas Success Initiative (TSI) College Preparatory

The Texas Success Initiative (TSI) became effective Sept. 1, 2003. This initiative replaces the Texas Academic Skills Program (TASP) and is in effect for students who register and pay prior to August 26, 2013.

Students enrolling for the first time in college after August 26, 2013 fall under the Texas Success Initiative which requires that incoming students, unless exempt, be assessed for college readiness in the areas of reading, mathematics, and writing by the TSIA. This initiative further requires that students who do not meet the passing standard of an area of the assessment are not allowed to enroll in college-level classes requiring skills in the unmet area until those college readiness skills are met. Students can meet the skills requirement by completing the sequence of college preparatory courses for that area or by passing a retest of the assessment instrument. Students should meet with an educational planner/counselor to develop their individual college preparatory education plan which will include: when college preparatory studies must begin, the sequence of required college preparatory courses, possible retesting, study skills, and other options for developing college readiness.

The placement chart, published in this catalog, indicates the various skills prerequisite levels, their corresponding score ranges on the placement tests and either the college preparatory courses in which students must enroll or the college-level English or mathematics courses in which they may enroll if they meet the skill level requirement. The placement chart also indicates the college preparatory course sequence for each skill area.

Exemptions from the Texas Success Initiative

Students are exempt from the provisions of the Success Initiative if they have met one of the following conditions:

- Enrolling in a Level 1 technical certificate or occupational certificate program.
- Have graduated with an associate degree or higher from a regionally accredited institution of higher education.
- Are serving on active duty as a member of the Armed Forces of the United States, in the Texas National Guard, or as a member of a Reserves unit of the Armed Forces of the United States and have been serving for at least three years preceding enrollment; or have been honorably discharged, retired, or released on or after Aug. 1, 1990.
- ACT composite score of 23 or higher with individual mathematics and English scores of no less than 19. Scores are valid for five years from the date of testing. Scores on a residual ACT are not acceptable for TSI exemption.
- SAT composite score of 1070 or higher with verbal and mathematics scores of no less than 500. Scores are valid for five years from the date of testing. A mathematics score of 500 is required to qualify for enrollment in college algebra.
- Exit-level TAKS mathematics score of 2200 or higher and a language arts score of 2200 or higher with an essay score of 3 or higher. Scores are valid for five years from the date of testing.
- STAAR score on Algebra II EOC with a score of 4,000 or higher.
- Transfer from a regionally-accredited institution of higher education and have satisfactorily (with a grade of D or higher) completed college-level course work related to a skill area(s). Students who have not completed course work related to all skill areas must be assessed in the unmet area(s) and must participate in college preparatory studies if the area(s) is not met on the test.
- Have attended any regionally accredited institution of higher education and have been determined to have met readiness standards by that institution. This includes passing scores on an approved assessment instrument, a previous determination of college readiness (exemption) under the TASP or the completion with grades of C or higher of college preparatory studies at that institution.

NOTE: Degrees from non-English speaking foreign institutions and non-regionally accredited institutions do not qualify a student for an exemption of the TSI.
Partial Exemption Based on SAT, ACT, TAKS, STAAR

Students who do not meet all-area exemption standards on one of the above tests are considered to be exempt in the individual areas where the composite and area standard is met. Partial exemptions based on the SAT, ACT, STAAR, or exit-level TAKS are as follows:

<table>
<thead>
<tr>
<th>Reading and Writing</th>
<th>Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT Composite 23+ and ACT English 19+</td>
<td>ACT Composite 23+ and ACT Mathematics 19+</td>
</tr>
<tr>
<td>SAT Composite 1070+ and Verbal (Critical Reading) 500+</td>
<td>SAT Composite 1070+ and Mathematics 500+</td>
</tr>
<tr>
<td>TAKS Language Arts 2200+ and Essay of 3+</td>
<td>TAKS mathematics 2200+</td>
</tr>
<tr>
<td>Not applicable</td>
<td>STAAR Algebra II, 4000</td>
</tr>
</tbody>
</table>

Students who are partially exempt based on the ACT, SAT, TAKS, or STAAR must test for TSI purposes in the areas where they are not exempt prior to enrolling for any courses.

Waived Certificate Programs

Students who enroll in a waived certificate program (level I certificates of technology, occupational certificates, or marketable skills achievement awards) are not exempt from required assessment, but are waived from required college preparatory studies while enrolled in their waived program. However, they are restricted to enrollment in only those courses within the waived program and must meet course related skill level requirements.

TSI Requirements Deferred for Students Who are not Seeking a Degree or Certificate

Students who declare that they are not seeking a degree or certificate may defer both the required assessment (testing) and college preparatory education provisions of the TSI. However, they may accumulate no more than 15 term hours of college-level credit while they delay these provisions. Once students have earned 15 college-level credit hours, they must meet all TSI requirements. To delay assessment and college preparatory studies, students must meet with an educational planner/counselor to declare that they are not seeking a degree or certificate and be assigned the appropriate status. Students with this status must meet all course skill prerequisites, thus assessment may be required. Students in this non-degree seeking status are not eligible for state or federal financial aid.

Skills Prerequisites

Many courses, have minimum levels of skill in reading, writing and/or mathematics stipulated as prerequisites. These prerequisites constitute conditions of enrollment for all students coming under the provisions of the TSI and cannot be waived. They are stated in terms of numerical levels, which correspond with certain ranges of scores on the placement tests. To satisfy a course skills prerequisite, students must score within the range of scores corresponding to the indicated level.

Advising – College Preparatory Studies

Advising on college preparatory education and degree or certificate program options is always available to students at San Jacinto College. At certain times advising is required. Entering students who are not exempt, and who have not met TSI testing requirements, must see an educational planner/counselor or enrollment advisor to determine if they must take an assessment test and to obtain a Testing Referral Form.

Meeting the Requirements of the Texas Success Initiative

Students must have demonstrated college readiness (area by area) prior to being allowed to enroll in college-level courses with an area skill requirement. College readiness is demonstrated by prior college-level course work with a grade of D or higher, passing an approved assessment instrument (test) or successful completion of college preparatory course work with a grade of C or higher. Once a Success Initiative area is met, students are not required to further retest unless they are seeking entrance into a program of study that requires passing a test for TSI purposes.

Student Initiated Withdrawal from Required College Preparatory Studies

Students enrolled in college preparatory studies may, under certain exceptional circumstances and for one term only, withdraw from one required college preparatory course, but must meet with an educational planner/counselor to discuss their individual college preparatory education program. This conference should explore the consequences of withdrawing, such as delayed college readiness, restriction from college-level courses with required skill prerequisites, delayed entry into programs of study requiring certain skill levels, and other factors affecting the student’s educational objectives. Students are required to continue with their college preparatory studies program at their next registration and will not be permitted to subsequently withdraw from required college preparatory studies.

Texas Success Initiative Assessment (TSIA)

The TSIA Mathematics and Statistics Test is a multiple choice assessment that covers the key College and Career Readiness Standards, which includes Elementary Algebra and Functions, Intermediate Algebra and Functions, Geometry and Measurement and Data Analysis, Statistics, and Probability. There are approximately 20 items on the placement test and 10 items per category on the diagnostic test.
The TSIA Writing Test is a multiple choice assessment that covers the key College and Career Readiness Standards, which includes Essay Revision, Agreement, Sentence Structure, and Sentence Logic. There are approximately 20 items on the placement test and 10-12 items per category on the diagnostic test.

The TSIA Reading Test is a multiple choice assessment that covers the key College and Career Readiness Standards, which includes Literary Analysis, Main Idea and Supporting Details, Inferences in a Text or Texts, and Author’s Use of Language. There are approximately 24 items on the placement test and 10-12 items per category on the diagnostic test.

The Texas College and Career Readiness Writing standards asks students to write essays that “demonstrate clear focus, the logical development of ideas in well-organized paragraphs, and the use of appropriate language that advances the author’s purposes.” WritePlacer automatically evaluates students’ essays written to one of several prompts. WritePlacer essays are electronically scored by the Intelligent Essay Assessor (IEA) that is powered by the Knowledge Technologies (KT) engine. Feedback is provided on the following dimensions: purpose and focus, organization and structure, development and support, sentence variety and style, mechanical conventions, and critical thinking.

College Preparatory Courses

Students Who Enrolled in College Prior to Fall 2010

The college preparatory program provides a path for students who are not college-ready. This is based on a TSI assessment to reach college readiness. It is the College’s policy that students who are not college-ready in an area(s) (reading, writing, math) must begin college preparatory courses at their first enrollment and must continue enrolling in at least one college preparatory class each semester until they are college-ready in all areas.

Students Enrolling in College for the First Time Fall 2010 or Thereafter

The following rules must be followed by students when enrolling in college preparatory courses:

1. A student who is not college-ready in reading must first enroll in the required college preparatory reading course. If the student enrolls in a second course, it must be GUST 0305, College Student Success. The student can then enroll in other courses for which he or she has met the required skills/course prerequisites.

2. A student who is not college-ready in writing must first enroll in the required college preparatory writing course. If the student enrolls in a second course, it must be GUST 0305. The student can then enroll in other courses for which he or she has met the required skills/course prerequisites.

3. Students must begin college preparatory courses at their first enrollment and must continue enrolling in at least one college preparatory class each semester until they are college-ready in all areas.

Students Enrolling in College for the First Time Fall 2012 or Thereafter

1. A student who is not college-ready in reading or writing must first enroll in the required college preparatory integrated reading and writing (INRW) course. If a student enrolls in a second course, it must be GUST 0305, College Student Success. The student may then enroll in other courses for which he or she has met the required skills/course prerequisites.

2. A student who is NOT college ready in reading OR writing, and not college ready in math, must enroll in the required college preparatory requirements in reading and writing first, then GUST 0305 and then enroll in MATH requirements. The student may then enroll in other courses for which he or she has met the required skills/course prerequisites.

3. A student who is college ready in reading AND writing, but not college ready in math, must enroll in the required college preparatory math course. The student must enroll in either GUST 0305, EDUC 1300 or PSYC 1300 before they register for their 10th college credit.

4. Students must begin college preparatory courses at their first enrollment and must continue enrolling in at least one college preparatory class each semester until they are college-ready in all areas.

Student Success Initiative

San Jacinto College is committed to student success. The College Student Success course, GUST 0305, is a three-credit hour non-transferable college preparatory course. The Learning Framework course, EDUC 1300 or PSYC 1300, is a three-credit hour, college level, transferable student success course. These courses are designed to provide students with the academic and personal skills needed for college success.

Students Enrolling in College for the first time Fall 2012 or Thereafter

The following rules must be followed by students when enrolling at San Jacinto College:

1. A student who has not met TSI standards in reading or writing must enroll in a GUST 0305 course.

2. A student who has met TSI standards and is college-ready in reading and writing, but has not met TSI standards and is not college ready in math, must enroll in either the GUST 0305, or EDUC 1300 or PSYC 1300.
3. A student who has met TSI standards and is college-ready in math, reading, and writing must enroll in a Learning Framework course, either EDUC 1300 or PSYC 1300.

4. A student who transfers to San Jacinto College with fewer than 11 hours of college level credit will be required to enroll in GUST 0305, EDUC 1300, or PSYC 1300.

5. Students required to take the Learning Framework course must enroll in the course before enrolling in their 10th college-level credit hour.

6. Students who do not successfully complete a Student Success course will be required to re-enroll in the course the following semester.

7. Successful completion of either the College Student Success course GUST 0305, or one of the Learning Framework courses EDUC 1300 or PSYC 1300, satisfies the Student Success Initiative requirement.

Exceptions to the Student Success Initiative Requirement

Students are waived from the required Learning Framework course if they meet one of the following conditions:

1. A student who is in a technical program.

2. A student who is classified as a transient student.

3. A student who is enrolling during the Summer between graduating from high school and attending a four-year institution the following Fall semester.

4. A student who transfers to San Jacinto College with more than 11 hours.

Testing

Prior TSI assessment tests (COMPASS, ASSET, Accuplacer, etc.) may be used to determine course placement if the student:

1. Is a continuing undergraduate San Jacinto College student or transfer student who has completed at least one course with a grade W, WL, A, B, C, D, F, or FX or the equivalents prior to August 26, 2013, and the course completion can be documented on an official transcript; or

2. Is a first-time-in-college student who took the test(s) prior to August 26, 2013, at San Jacinto College or at another college or university (official scores submitted), and is enrolled and full payment IPP has been completed for Fall 2013 at San Jacinto College prior to August 26, 2013.

All other students not meeting these testing requirements must take the TSI Assessment to determine course placement.

The San Jacinto College Testing Centers administer institutional, state, national, correspondence and distance learning exams for all students as well as for our community members; including but not limited to state approved exams, SAT, ACT, GED, CLEP, correspondence and distance learning computerized exams.

Please visit the student development office or Enrollment Services Office to receive a Testing Request Form.

Central Campus: 281-542-7147
Room C3.133

North Campus: 281-458-4050 Ext 2347
Room N6.220

South Campus: 281-922-3433
Room S6.220

ESL Testing

The COMPASS-ESL is used only for admission into the English for Speakers of Other Languages (ESOL) credit program. The College administers this test to speakers of other languages who do not meet the English language proficiency requirement and who seek admission only into the ESOL program.

COMPASS – ESL PLACEMENT CHART

<table>
<thead>
<tr>
<th>READING</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-63</td>
</tr>
<tr>
<td>64-83</td>
</tr>
<tr>
<td>84-95</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GRAMMAR/Writing (one score-two classes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-63</td>
</tr>
<tr>
<td>64-83</td>
</tr>
<tr>
<td>84-95</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LISTENING</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-63</td>
</tr>
<tr>
<td>64-83</td>
</tr>
<tr>
<td>84-95</td>
</tr>
</tbody>
</table>

General Educational Development or GED

The GED test consists of four separately timed tests that cover five main areas of high school study. All students must register and schedule testing at www.ged.com or call 1-877-392-6433.
## Placement Chart

### TEXAS SUCCESS INITIATIVE ASSESSMENT PLACEMENT CHART

#### MATHEMATICS

<table>
<thead>
<tr>
<th>SKILL LEVEL</th>
<th>APPROPRIATE COURSE</th>
<th>SKILL LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 336</td>
<td>MATH 0106-NCBO or advisor's discretion</td>
<td>Skill level 4</td>
</tr>
<tr>
<td>336 - 343</td>
<td>MATH 0305</td>
<td>Skill level 6</td>
</tr>
<tr>
<td>344- 349</td>
<td>MATH 0306</td>
<td>Skill level 7</td>
</tr>
<tr>
<td>350 or higher</td>
<td>College level math</td>
<td>Skill level 9</td>
</tr>
</tbody>
</table>

#### READING

<table>
<thead>
<tr>
<th>SKILL LEVEL</th>
<th>REQUIRED COLLEGE PREPARATORY COURSE</th>
<th>SKILL LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 342</td>
<td>Intentional Connections (READ 0308; ENGL 0306)</td>
<td>Skill level 2</td>
</tr>
<tr>
<td>342 - 346</td>
<td>INRW 0301</td>
<td>Skill level 4</td>
</tr>
<tr>
<td>347-350</td>
<td>INRW 0302</td>
<td>Skill level 6</td>
</tr>
<tr>
<td>351 or higher</td>
<td>Review Writing score</td>
<td>Skill level 7</td>
</tr>
</tbody>
</table>

#### WRITING

<table>
<thead>
<tr>
<th>SKILL LEVEL</th>
<th>REQUIRED COLLEGE PREPARATORY COURSE</th>
<th>SKILL LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 349</td>
<td>Intentional Connections (READ 0308; ENGL 0306)</td>
<td>Skill level 2</td>
</tr>
<tr>
<td>350-356 (no essay)</td>
<td>INRW 0301</td>
<td>Skill level 4</td>
</tr>
<tr>
<td>357-362 (no essay)</td>
<td>INRW 0302</td>
<td>Skill level 6</td>
</tr>
<tr>
<td>Essay score 5 or essay score of 4 and multiple choice 363 or higher</td>
<td>ENGL 1301</td>
<td>Skill level 7</td>
</tr>
</tbody>
</table>
Registration

Web Registration—Secure Online System (SOS)

The online registration system is Secure Online System (SOS). Once students have been admitted, they may access SOS.

Web registration is available at www.sanjac.edu/soslogin.

Students who have completed orientation, submitted meningitis vaccination documentation or are exempt from the requirement, and have been admitted/re-admitted, or continuing students, may access web registration. Dual credit students will need to see the dual credit director or their high school counselor for registration.

The following steps will give students access to the Secure Online System (SOS):

1. Visit the San Jacinto College website at www.sanjac.edu, select MySanJac, and see the Secure Online System (SOS) login.
2. To login, enter your generated ID number, which is a capital G with the assigned eight digit number.
3. Enter the six-digit PIN that was provided when you claimed your account.
4. Select My Registration and follow the system prompts.
5. Select the term in which you want to enroll. There are multiple terms available.
6. Select Step 5, register for classes. You may search by subject, campus, and class times, or you may simply enter the CRN numbers for desired classes. Select Submit Changes to save the requested classes or to determine if there are registration restrictions. When the schedule is correct, select the View My Schedule link at the bottom of the page to have the system calculate the tuition and fees due. Submitting changes will add charges if classes have started.
7. Select View Fee Assessment, and then select Student Account Suite button. Refer to the Registration and Payment Schedule for payment deadlines.
8. Be sure to print your schedule and/or payment confirmation before you exit SOS and carefully check that it is correct. Late changes result in additional charges. Students who change their minds about one or more courses should drop the unwanted classes prior to the first day of class to ensure a 100 percent refund of charges. Once a student has registered and paid, he/she is officially enrolled and subject to college regulations concerning withdrawal and refunds. This will not relieve the student of legal financial obligations for his/her enrollment nor does it constitute withdrawal from classes.

In addition to registration, other services available in SOS are:

- Check registration status
- Display class schedule
- Add or drop classes
- View changes and make payments by credit/debit card, check or Installment Payment Plan
- View holds
- Request official transcript
- Display grades and print unofficial transcripts
- Complete degree evaluations
- View financial aid information
- View personal information
- View test scores
- Change PIN

Course Finder

Course Finder is an online tool to help students build a possible schedule. If students use it to look up information, they must remember to login to SOS to register for classes.

Schedule Disclaimer

The College will determine the times and locations of classes, as well as the minimum and maximum enrollment per class. The College reserves the right to cancel classes, change instructors and otherwise alter the schedule. There is no charge for schedule changes due to canceled classes. To replace a canceled class, the student should make changes during the time designated in the Schedule of Classes.

Course Load

A regular course load during a Fall or Spring term is 15 to 17 term hours or five courses, excluding physical education, choir, or band. The maximum course load during 16 weeks is 18 hours. Only exceptional students may, with the approval of the Provost, enroll for additional term hours of credit. The maximum course load permitted during both Summer sessions is 14 term hours or seven term hours per summer five-week part of term. The maximum load in a three-week mini session is three term hours.

Working students should consider the number of term hours they take in relation to the number of hours they work per week. It is unrealistic for students employed full-time to enroll in college full-time. Students achieve full-time status when they enroll for 12 or more term hours in a full term or Summer session. A useful guideline is that students should spend at least two hours studying for every hour they spend in the classroom. For example, a student taking 15 term hours assumes the responsibility for a minimum of 45 hours per week, 15 hours in class and 30 hours studying. The
College reserves the right to limit the number of term hours that working students may attempt.

The second digit of a course number indicates the credit hours associated with that course.

### Enrolling at Multiple Campuses

Students are encouraged to take classes at any of the campuses of the College district. Students wanting to take courses at multiple campuses must calculate the time needed to drive, consider traffic conditions, time needed to park, and walk to class between one campus and another prior to scheduling classes. The allotted time between classes is ten minutes. The estimated minimum travel time between campuses is as follows:

- Central to South - 35 minutes
- Central to North - 50 minutes
- North to South - One hour and five minutes

This means that usually one class period must be left unscheduled to allow enough time to safely travel from one campus to the next. The number of times a student can be tardy to class calculates into the excessive absences maximum and could cause students to receive a failing grade in a class. Additionally, students entering class late creates a less than optimum teaching and learning environment.

### Parts of Term

The terms include a traditional “full” term of 16 weeks (Fall and Spring) or 11 weeks (Summer), as well as multiple shorter “parts-of-term” which are provided to enable students to enroll in courses throughout the year. For example, the Spring term includes a 16-week session, a 14-week “weekend” session, two overlapping 12-week sessions, two eight-week sessions, a six-week/10-week combination and four four-week sessions. Students should register for the entire term at one time so that all tuition and fees can be included in Installment Payment Plans (IPP). The various parts of term provide significant flexibility for scheduling and increase the opportunities for enrolling at times other than the start of the full term. Following the start of the term, the online system is open for adding classes in those parts of term that have not yet started.

### University Transfer

Students planning to transfer to a senior college or university should select courses according to the curriculum requirements of the institution they plan to attend. Students should contact a college educational planner/counselor for help in selecting courses.

Students not planning to transfer may select courses according to associate degree, certificate requirements or personal preference.

### Concurrent Enrollment

The total number of term hours taken by a student concurrently enrolled at San Jacinto College and another college or university may not exceed that allowed by College regulations (see Course Load).

### Prerequisites or Co-requisites

Some course descriptions stipulate that students must earn credit for a certain course prerequisites before they can register for that course. Prerequisites help assure that students have sufficient background in the subject to succeed in the course.

A co-requisite is a notation in a course description indicating that a student who enrolls in the course must also enroll concurrently in the listed co-requisite course unless that course has already been completed with a passing grade.

Minimum placement test scores in reading, writing and/or mathematics skills are prerequisites for virtually every academic and college preparatory course. These prerequisites constitute a condition of enrollment in these courses for all students and cannot be waived. Course descriptions in the Catalog will indicate which courses have such prerequisites.

Under special circumstances the department chairman may allow a student to register for a course without the required prerequisite or co-requisite. A waiver of the required prerequisite or co-requisite does not affect degree requirements. Students who have been granted a waiver may earn needed credit through course substitution or credit by examination. Although students may receive credit toward graduation at San Jacinto College, if prerequisites are waived for certain courses, another college may not allow credit for such courses. If students do not follow prerequisite/co-requisite requirements, the College may withdraw them from the course.

### Repetition of Courses

If a student repeats a course for which credit has previously been received, the higher grade is the grade of record. Neither the hours nor the grade points associated with the lower grade will be used in transcript Grade Point Average (GPA) calculations; however, the lower grade will remain on the student's transcript permanently and will be included in calculations of financial aid eligibility.

A few courses may be repeated for credit. These exceptions are noted in the course descriptions found in this catalog. Students planning to transfer should check with the receiving institution concerning policy for enrollment services GPA calculations for repeated courses.

### Schedule Changes

Students may change their schedules by dropping and/or adding course sections only during designated periods. A student may drop a course or withdraw from all courses within the published time period during the term. There is no additional charge for course changes prior to the first day of the term or part of term. The student should initiate the drop online. The Academic Calendar and the refund schedule list deadline dates and refund amounts.

If the student is unable to drop online or in person, he/she must request withdrawal in writing to the Enrollment Services Office with signature and picture identification. The date the Enrollment Services Office receives a fax or letter request is the official date of
withdrawal, regardless of the last date of class attendance. Students enrolled in college preparatory courses must drop courses in person.

**Class Change Fees**

Students can make changes to their class schedule without a fee prior to the published start date of the term/part of term. Students changing classes or sections resulting in dropping classes or sections on or after the start date will be assessed charges in accordance with the state refund schedule.

**Late Registration Policy**

San Jacinto College maintains a No Late Registration Policy. Registration is available until the day before the first of class. Enrollment Service Offices can assist students with enrollment up until one hour before the class starts. Registration dates and refund schedules can be found at http://www.sanjac.edu/refunds.

**Dropping Courses**

A student who wishes to drop a course must do so online using SOS, or by visiting the Enrollment Services Office, or educational planning office. Simply informing the instructor of the intent to drop is not sufficient. The student is responsible for dropping officially from a course. A student may not drop after the last published drop date or receive a grade of W. Students may not attend any class from which they have dropped.

Students enrolled in preparatory courses need to meet with an educational planner/counselor before dropping courses.

Drop requests become official and effective the date entered in SOS or received in the Enrollment Services Office in writing with a signature and photo identification. The College will not honor requests received after published drop deadlines.

Students who make class changes online should print and retain verification of their schedule changes in case questions arise later about refunds or transcript records.

**Complete Withdrawal from College or Dropping All Courses**

Dropping all courses for the term at the same time constitutes the intent to officially withdraw from the College. Additionally, when students officially withdraw or do not withdraw from the College but drop individual courses, when the last course is dropped, the College requires that the student return all College-owned property and pay all outstanding debts of tuition, fees, and fines. San Jacinto College does not issue official transcripts for students who have outstanding debts or unreturned College property.

**Withdrawal Deadlines**

The College website displays the deadlines for withdrawing from classes to receive a grade of W or WL. As mandated by the Texas Higher Education Coordinating Board, the withdrawal deadline is determined at approximately the 75 percent point of the course.

Students should check the College website to determine the correct date for specific courses. After the deadline the College does not permit withdrawal with a grade of W or WL and students will receive a grade of A, B, C, D, F, FX, I, or NG.

**Six-Drop Limit Provisions (TEC 51.907)**

Students who enrolled as entering freshmen or first-time-in-college (FTIC) students during the Fall 2007 and thereafter are subject to the provisions of the Six-Drop Limit. This limits the total number of drops of an affected student to six. These six include all drops from all Texas public colleges or universities. The drops a student has at San Jacinto College that are within the six-drop limit will be identified with a grade of WL. An affected student may only have six grades the equivalent of WL from all Texas public colleges and universities attended. The number of drops included in the limit from transfer institutions will be indicated on the transcript sent to San Jacinto College. After the student has received six grades the equivalent of WL in total, the student will not be allowed to drop any additional courses and must receive grades of A, B, C, D, or F in the courses.

Students who remain enrolled in the course on or after the official census date of the course will be awarded a grade on the transcript. Courses dropped prior to the census date for that course will not count in the six-drop limit since courses dropped prior to the census date are not awarded a grade of W or WL. (The official census date varies according to the length of the course. If students attempt to drop the course over the SOS self service system, and the drop option is W3, W4, or W5, these drops will result in a grade of WL on the transcript for affected students.)

San Jacinto College will consider the following situations as constituting an approved blanket exemption from the six-drop limit for affected students:

1. Grades of W in all college preparatory courses or any courses with a “0” score in the first digit of the course number.

2. All grades of W received for all courses taken by dual credit/early admission students received prior to high school graduation even if taken after Fall 2007.

3. All grades of W received when the student’s intent was to “withdraw” from the institution. To meet the requirement for “withdrawing from the institution” the student must drop all courses for all parts of term on the same date. This applies to drops after the official census date. The term is viewed in totality and not by part of term. The student must inform the Enrollment Services Office of his or her intent to withdraw.

San Jacinto College will notify by email all new first-time-in-college applicants that they will be limited to six course drops during their enrollment at all public colleges and universities in Texas. Students affected by the six-drop limit may view the total number of drops accumulated at San Jacinto College and transfer institutions through their SOS accounts.
REGISTRATION

There are provisions for appeal of grades of WL awarded at San Jacinto College that are included in the six-drop limit. Grades included in the six-drop limit from transfer institutions are not known to San Jacinto College and any appeal must be directed to the transfer institution. For more information, go to www.sanjac.edu/six-drop.

Class Attendance

Students must attend all lecture and laboratory periods. An education is more than just acquiring information. Through regular class attendance students gain clearer insight into complex issues through interaction with professors and other students.

Instructors keep an accurate record of each student’s attendance and do not allow students who do not attend regularly to slow the pace of the class. However, instructors may provide an opportunity for a student who presents a reasonable excuse for an absence to make up missed work. A student who does not offer a satisfactory explanation for an absence will have that absence classified as unexcused and earn an F for any test, assignment or laboratory work given or due during that absence. The student will not be allowed to make up work that was missed.

Whenever a student’s absences reach 8.33 percent of the contact hours of the course for unexcused reasons or reasons unknown to the instructor, the instructor may request that the student drop the course (if applicable, see TEC 51.907 Six-Drop Limit Provisions section) and if not eligible to drop or the student chooses not to drop, the instructor may award a grade of FX at that time, which will prohibit the student from attending class.

For example, the number of contact hours in a Fall or Spring term course equals the number of weekly classroom and laboratory hours in the course description multiplied by 16. Therefore, professors may prohibit the students who accumulate four hours absence in classes meeting three hours per week or eight hours absence in classes meeting six hours per week from attending class. Three unexcused tardies count as one unexcused absence.

An instructor also has authority to request that the student drop the course and to prohibit a student from participating in class, when the instructor believes the student has accumulated so many absences (including excused absences) that the student cannot reasonably expect to pass the course. An instructor may also award the temporary grade of I (Incomplete) only under certain circumstances. (See the Incomplete (I) section under the Grading System section for specific information.)

Note: A student who wishes to withdraw from a course must withdraw officially online, or through the Enrollment Services Office; simply informing the instructor of the intent to withdraw is not sufficient. The Withdrawal from Courses section which follows gives more information.

Accreditation or certification standards that require more stringent attendance policies may govern certain departments or programs.

College regulations specify that only students who have registered for the class and who are listed on the official class rolls may attend a class. Students not listed on official class rolls may not attend classes; nor may students who have withdrawn or who have been withdrawn attend classes.

Auditing a Course

Approval to audit a credit course may be granted to individuals who complete the audit application with the Enrollment Services Office.

- Auditors (including senior citizens) must enroll for the course after the first class meeting during the official registration period, but before the second class meeting.
- Not all courses are available for audit. Courses that have met the maximum occupancy cannot be audited. CPD classes are not available for audit.
- Students must meet all prerequisite and skill level requirements for the course being audited.
- Financial aid does not cover the cost to audit a course.
- Students must purchase the required materials, including books, for the course.
- Audit students will have access to all buildings, services, and technology, including Blackboard and SOS.
- Audit students must obtain a student ID from the Enrollment Services Office and a parking permit from the business office.
- Audited course work will be posted on the transcript with a grade of AUDIT.
- Audit students are required to conform to the same conduct in the classroom and on campus as credit students and must comply with the policies, rules, regulations, and generally accepted practices of the College (See San Jacinto College Handbook and Code of Conduct).
- Audit students must pay the same time they register, either in full or by enrolling in a payment plan, if available, at a campus business office. Tuition is based on residency status. The general service fee will apply to all students as a one time fee per semester.
- Refunds for dropping an audited course will follow the same schedule as the regular refund schedule. Please see enrollment services for assistance in dropping an audit class.
- Senior citizens 65 and older may audit a credit course without paying for tuition, but they must pay all applicable fees including the general service and related lab fees or incidental fees.

Senior Citizens Enrolling in Classes

Under Texas Law (Section 54.210), a college may allow senior citizens 65 years of age or older (by the first day of classes of the specific enrollment term) to enroll in up to six credit hours per term without paying tuition, providing there is space available. The senior citizen must pay all application fees, including the general service and related lab fees or incidental fees.
Residency

Residence Status for Tuition Purposes

Rules and Regulations for determining residence status are set by the Texas Education Code, Section 54.051(b) which may be viewed at www.statutes.legis.state.tx.us/ and the Texas Higher Education Coordinating Board Rules 21.727 at www.thecb.state.tx.us/.

For tuition purposes, students are classified as a Texas resident, a Texas resident in-district, a non-Texas resident/out-of-state or a non-Texas resident/out-of-country student. Determination of a student's residence status is made in accordance with the laws of the state of Texas.

During the admission process, all students answer the Texas Common Core questions for residency in order to provide for determination of their status as either a Texas resident, nonresident or international student.

Relevant Definition

Dependent – A person who:

a. is less than 18 years of age and has not been emancipated by marriage or court order; or

b. is eligible to be claimed as a dependent of a parent of the person for purposes of determining the parent’s income tax liability under the Internal Revenue Code of 1986.

Students who are considered dependents, will use residency based on their parents' or legal guardians' eligibility for Texas residency using the scenarios listed below.

Texas Resident

The following persons shall be classified as Texas residents and entitled to pay resident tuition at all Texas public institutions of higher education:

1. a qualifying person who:
   a. graduated from a public or accredited private high school in this state or, as an alternative to high school graduation, received the equivalent of a high school diploma in this state, including the successful completion of a nontraditional secondary education, and
   b. maintained a residence continuously in this state for the 36 months immediately preceding the date of graduation or receipt of the diploma equivalent, as applicable; and
   the 12 months preceding the census date of the academic semester in which the person enrolls in an institution.

2. a qualifying person who:
   a. established domicile in this state not less than 12 months before the census date of the academic semester in which the person enrolls in an institution; and
   b. maintained domicile continuously in the state for the 12 months immediately preceding the census date of the academic semester in which the person enrolls in an institution.

3. a qualifying dependent whose parent:
   a. established domicile in this state not less than 12 months before the census date of the academic semester in which the person enrolls in an institution; and
   b. maintained domicile continuously in the state for the 12 months immediately preceding the census date of the academic semester in which the person enrolls in an institution.

The student has the burden of proof to show by clear and convincing evidence that residence or domicile, as appropriate, has been established and maintained.

Non U.S. Citizens eligible to establish Texas residency

Non U.S. Citizens who are eligible to domicile in the U.S., must prove they have lived in Texas for one year and show proof of their eligibility to domicile.

Permanent residents of the United States must furnish their permanent resident (green) card or I-551 passport approval stamp.

An eligible nonimmigrant who has filed an application for permanent residency must provide the original Notice of Action with an approval notice.

An eligible nonimmigrant that is eligible to establish domicile in the United States may be eligible for classification as a Texas resident. The Texas Higher Education Coordinating Board has identified eligible students to be (1) holders of unexpired visas with A-1, A-2, A-3, E-1, E-2, G-1, G-2, G-3, G-4, G-5, H-1B, H-4 (dependent of H-1B only), I, K-1, K-2, L-1A, L-1B, L-2N-8, N-9, NATO 1-7, O-1, O-3 (dependent of O-1 only), R-1, R-2, T-1, T-2, T-3, T-4, TPS, U-1, U-2, U-3, U-4, V-1, V-2, V-3; or (2) individuals classified by the INS as asylees, parolees, refugees, permanent residents, conditional permanent residents and temporary residents holding an I-688 or I-688B Temporary Resident card that has not expired.

Undocumented immigrants who meet academic admission requirements will be permitted to enroll, but normally will be subject to the tuition rate applicable to non-residents. Undocumented immigrants may qualify for the tuition rate applicable to the residents of Texas if all four of the following qualifications are met and adequate proof is provided:

1. Graduated or will graduate from a Texas high school or received a GED certificate in Texas.

2. Resided in Texas for at least three years leading up to graduation from high school or receiving a Texas GED.

3. Reside or will have resided in Texas for the 12 months immediately preceding the census date of the semester to be enrolled.

4. Provide to the institution an affidavit stating that the individual will file an application to become a permanent resident at the earliest opportunity the individual is eligible to do so.
Residency

Texas Resident Out-of-District
Refer to rules in the Texas Resident section above. Students must first meet all qualifications in that section.

A resident student will be designated with an out-of-district residency classification if the student or eligible person upon whom the dependent student is basing their residency resides outside of the San Jacinto College taxing district, as determined by the Harris County Appraisal District.

Texas Resident In-District
Refer to rules in the Texas Resident section above. Students must first meet all qualifications in that section.

A resident student will be designated with an in-district residency classification if the student or eligible person upon whom the dependent student is basing their residency resides inside the San Jacinto College taxing district, as determined by the Harris County Appraisal District (www.hcad.org). Post office boxes cannot be used to designate a student as Texas-resident in-district. The San Jacinto College taxing district generally includes the following independent school districts: Channelview, Deer Park, Galena Park, La Porte, Pasadena, and Sheldon.

Reclassification of Texas Resident status
Students may request a reclassification of Texas Resident status by visiting the Enrollment Services Office when their permanent address changes. When changing an address, students must complete and sign a change-of-address form and if changing to an in-district address, must provide documentation connecting them to the in-district address such as a current apartment lease, property tax documents, current utility bill in the student’s name or current utility bill in the parent(s) name(s) and the income tax documents showing the student is being claimed as a dependent. Students requesting a reclassification of the Texas resident status prior to the census date for the current term may have the change applied to the current term’s tuition status. Requests received after the census date will be effective for the following term.

Documentation for Texas Resident Status
Although not conclusive or exhaustive, documentation indicating the following circumstances existed throughout at least 12 consecutive months immediately preceding the census date of the semester in which a person seeks to enroll may lend support to a claim regarding his/her intent to establish and maintain domicile in Texas.

- Sole or joint marital ownership of residential real property in Texas by the student or the dependent’s parent, having established and maintained domicile at that residence;
- Ownership of a business by the student or the dependent’s parent in Texas;
- Gainful employment in Texas by the student or the dependent’s parent;
- Marriage, by the student or the dependent’s parent to a person who has established and maintained domicile in Texas.

If, as the answers to the core questions are reviewed by College officials, there remains a question as to the student’s proper residency classification, the student must provide a copy of one or more appropriately dated documents which will establish Texas residency. For a list of other appropriate examples, please refer to the Texas Higher Education Coordinating Board documentation charts at info.sos.state.tx.us/fids/201100457-2.html. The institution must then maintain those documents showing that the student classified as a resident has legal right to such classification as of the official census date of the term or term for which the student is enrolling.

The institution is charged to obtain necessary documentation that conclusively confirms the student’s actual residence. Any address change that causes a reduction in tuition must be accompanied by appropriate documentation. When returned mail or other occurrences raise questions about the validity of the student’s address or when conflicting information exists, additional documentation will be required. Students will be allowed to register but will be charged at the higher rate until required documentation is provided.

For a complete list of documentation that may be required, please refer to the Texas Coordinating Board website or the Enrollment Services Office. The Enrollment Services Office is the final authority on all questions and decisions regarding residency classification for tuition purposes.

Non-Texas Resident

A student or dependent student who resides or whose parent or legal guardian resides out of state or has not established domicile in the state for the 12 months prior to the official reporting date of the semester in which the student is registering is considered a non-Texas resident.

A non-resident who marries a Texas resident must establish his/her own residency.

Visa: Students who have lived in Texas for the 12 months prior to the official reporting date of the semester, but do not have a Visa status that allows them to domicile will be coded as out-of-country.

Reclassification: To be reclassified as a resident (after one or more years of residency), eligible students must show proof of intent to establish Texas as their permanent legal residence. Refer to Texas Resident section of these rules for eligibility requirements and Chart II of the Texas Higher Education Coordinating Board Rules for a list of support documentation at info.sos.state.tx.us/fids/201100457-2.html.

Military Personnel

Military personnel or their families should check with the Enrollment Services Office and/or refer to the rules found in the Texas Education Code at www.statutes.legis.state.tx.us/ and Texas Higher Education Coordinating Board Rules at www.thecb.state.tx.us/ for requirements on resident tuition. Current military identification, military orders or a DD-214 may be required to receive resident tuition.
Tuition and Fees

Tuition and Fee Schedules

This schedule is subject to change by the Texas Legislature and the San Jacinto Community College District Board of Trustees.

Texas Resident Tuition Rate (TOD) (Out of District)

Tuition $89 per term hour

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In addition to tuition and fees, other fees will be charged for some classes.

Estimated Texas Resident Tuition Rate Student Expenses

(Based on 12 semester credit hours; non-resident of the San Jacinto College District)

Tuition at $89 per semester credit hour $1,068
General Services Fee $140
Lab Fee (based on two courses at $15 per course) $30
Books (based on four courses at $175 per course) $700
Total per Term $1,938

Texas Resident Reduced Tuition and Fees (TID) (In-District)

Tuition $47 per credit hour

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In addition to tuition and fees, other fees will be charged for some classes.

Estimated Texas Resident Tuition Rate Student Expenses

(Based on 12 semester credit hours; resident of the San Jacinto College District)

Tuition at $47 per semester credit hour $564
General Services Fee $140
Lab Fee (based on two courses at $15 per course) $30
Books (based on four courses at $175 per course) $700
Total per Term $1,434
# TUITION AND FEES

## Out-of-State and Other Non-Resident Tuition and Fees (TOS, TIS, TUV)

Tuition $149 per term hour

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In addition to tuition and fees, other fees will be charged for some classes.

## Non-Texas Resident Estimated Student Expenses

*(Based on 12 semester credit hours, Non-Texas resident)*

- Tuition (at $149 per semester credit hour) .................. $1,788
- General Services Fee ............................................. $140
- Lab Fee (based on two courses (at $15 per course)) ......... $30
- Books (based on four courses at $175 per course) .......... $700
- Total per Term .................................................... $2,658

## Additional Expenses

Students must purchase their own textbooks, workbooks and supplies such as paper, pencils, and computer storage media. Some courses also require that students buy special supplies.

### Fees Per Term

1. **General Service Fee (GSF)**—A fee of $140 is charged each Fall, Spring or Summer term. This fee is nonrefundable unless the student withdraws from all courses. The refund is prorated based on the published refund schedule.

2. **Schedule Change Fees**—Schedule changes made prior to the first day of class do not incur a fee. Any class changes on or after the first class day of the term are subject to the College refund policy which allows a maximum refund of 70 percent of tuition charges once the term or session has begun. Class changes are considered processed at the time of data entry. The student is considered liable for the appropriate charges. See Refund Table for list of charges.

3. **Lab Fees**—A Lab Fees chart appears later in this section. Lab fees are subject to change.

4. **Liability Insurance (ELI)**—There is a $7 charge per term per class for a few allied health clinical courses, such as dietetics technician, as well as cosmetology and massage therapy lab courses.

5. **International Student Processing Fee (EFS)**—$35. This fee is assessed to students holding F-1 Visas each term of enrollment.
Course and/or Other Incidental Fees Required for Specific Courses

**Aeronautical Technology (EFAA, EFFT, EFUF)** — Flight courses are subject to regular College tuition and fees. All College tuition and fees must be paid at the time of registration. Flight fee charges are subject to change when the current contract changes. Please contact the aeronautical department for the most recent flight fees. Flight loans are available through the installment payment plan. See Installment Payment Plan in the Paying For College section for additional information.

*Approved Flight Fees (EFAA, EFFT, EFUF)*

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<tr>
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*Flight fees are to be applied to a particular rating. Flight ratings are based upon proficiency and not on a completion of a particular course.*

Additional flight fees may be required to complete the rating.

**Additional Flight Simulation Fees (ESF)**

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**Air Conditioning Technology (ECA)**

HART1356 ........ $50

**Art and Design (EIA)**

ARTS 2323 .......... $100 ARTS 2324 .......... $100

**Associate Degree Nursing (ENR)**

RNSG 1227 .......... $152.50 RNSG 1434 .......... $130 RNSG 1417 .......... $130
RNSG 1251 .......... $130 RNSG 1413 .......... $152.50 RNSG 2208 .......... $152.50

**College Preparatory Reading (ENG)**

READ 0308 .......... $ 4 READ 0309 .......... $ 4

**College Preparatory Writing (ENG)**

ENGL 0306 .......... $ 4 ENGL 0308 .......... $ 4

**Dental Assisting (EDB)**

DNTA 1305 .......... $ 12 DNTA 1349 .......... $ 18

**Dental Assisting (EDE)**

DNTA 2130 .......... $ 470

**Distance Learning Fees (EDL, EDL6, EDLH)**

Online Courses (EDL) .......... $ 30 Videotape Courses (EDL6) .......... $ 30 ITV (Intra-Campus San Jac) .......... no cost ITV (San Jac to other) (EDL6) .......... $ 30 Hybrid Courses (EDLH) .......... $ 15

**Emergency Medical Technology (EIC)**

Certification Cards (North and Central)  
EMSP 1160 .......... $ 2.00  
EMSP 1501 .......... $ 2.25  
EMSP 2444 .......... $ 4.25  
EMSP 1355 .......... $ 20.00  
EMSP 2330 .......... $ 4.25

**Emergency Medical Technology (EMS)**

EMSP 1356 .......... $ 100  
EMSP 1501 .......... $ 70   
EMSP 2243 .......... $ 110

**Environmental Health and Safety (EOH)**

EPCT 1301 .......... $ 05

**Fire Protection (ECF, EFT, RFT)**

FIRS 1301 (EFT) .......... $ 100  
FIRS 1333 (ECF) .......... $ 85  
FIRS 1407 (RFT) .......... $ 35  
FIRS 1319 (EFT) .......... $ 300  
(TVFP, Test Application)  
FIRT 2333 (ECF) .......... $ 85

**Maritime Transportation (EME)**

NAUT 1171 .......... $ 38  
NAUT 1372 .......... $ 1,271  
NAUT 1374 .......... $ 1,571  
NAUT 1375 .......... $ 1,271  
NAUT 2471 .......... $ 1,648  
NAUT 2472 .......... $ 1,578

**Medical Assisting (EMP)**

MDCA 1254 .......... $ 125

**Medical Assisting (MAC)**

HPRS 1304 .......... $ 5.00

**Medical Imaging Technology (EMR)**

CTMT 2360 .......... $ 15  
RADR 1166 .......... $ 15  
RADR 2266 .......... $ 15  
CTMT 2361 .......... $ 15  
RADR 1266 .......... $ 15  
RADR 2267 .......... $ 15  
MAMB 2363 .......... $ 15  
RADR 1267 .......... $ 15

**Medical Laboratory Technology (MLB)**

MLAB 2238 .......... $ 250

**Music (EIM)**

All private lessons $1.50 per credit hour

**Pharmacy Technician (EPC, EPH, EPU)**

PHRA 1301 (EPU) .......... $ 50  
PHRA 1345 (EPH) .......... $ 150  
PHRA 1349 (EPC) .......... $ 40  
PHRA 2360 (EPH) .......... $ 129

**Physical Education (EIB)**

PHED 1111 .......... $ 58

**Respiratory Care (ERT)**

RSPT 2130 .......... $ 155  
RSPT 2130 .......... $ 190

**Surgical Technology (EST)**

SRGT 1542 .......... $ 247  
SRGT 2130 .......... $ 40

**Vocational Nursing (EVN)**

VNSG 2431 .......... $ 237

*All fees are subject to change by the San Jacinto Community College District Board of Trustees.*

**Excess Credit Hours for Undergraduate Students (30-Hour Rule)**

Effective May 9, 2006, college students who have attempted 30 or more credit hours beyond the minimum number of hours required for their baccalaureate degree requirements at a Texas public senior college or university may be charged additional tuition, up to the level that institution’s out-of-state charges.
## Lab Fees

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**TUITION AND FEES**

[www.sanjac.edu](http://www.sanjac.edu)
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This rule applies to all credit hours in which a student was registered as of the official census day for the term (i.e., 67, dual credit courses, failed courses and courses from which the student withdrew after census day). Students enrolled as undergraduates in the Fall term of 1999 or later could be affected.

A student’s credit hours received during any term prior to the Fall 1999 term; hours earned through examination; hours from college preparatory, technical courses, workforce education courses or other courses that would not generate academic credit that could be applied to a degree at the institution; hours earned at a private or out-of-state institution; any hours removed from admission consideration under Academic Fresh Start (Texas Education Code §51.931); and any hours not eligible for formula funding are exempt. Non-resident students paying tuition at the rate provided for Texas residents are subject to the same limitations as hours generated by resident students.

Texas Education Code §54.014 (§54.068 renumbered in 2006) as updated on July 5, 2006, reflecting changes from the 79th legislative session (House Bill 1172 and Senate Bill 1528, available at www.capitol.state.tx.us) established this option for public senior colleges and universities.

Repeated Courses and Unfunded Credit Hours

Students may be charged a higher tuition rate, not to exceed the non-resident undergraduate charge, in the following circumstances:

a. Repeated hours for attempted course: Credit hours for the same course (or a course substantially similar to an earlier course) previously attempted, but not completed (no grade received) for three (3) or more times at the same institution, are not eligible for state reimbursement. Institutions may, with the third and subsequent enrollments, charge an increased tuition rate, not to exceed that charged to non-resident undergraduate students to compensate for the loss of state formula funding.

b. Repeated hours for completed courses: Institutions may also charge students enrolling for the second time in a previously completed course at the same institution an increased tuition rate, not to exceed that charged to non-resident undergraduate students. A completed course is one for which a grade of A, B, C, D, F or Pass/Fail was earned. This rule applies to all credit hours for classes previously completed regardless of whether or not the hours may or may not be submitted for formula funding from the state.

The following types of credit hours are exempt and are not subject to these rules:

1. Hours earned by a student prior to receiving a baccalaureate degree that were awarded previous to the effective date of these changes.

2. Hours earned through examination or similar methods without registering for a course.

3. Hours from college preparatory courses, technical courses, workforce education courses or other courses that would not generate academic credit that could be applied to a degree at a senior institution.

4. Hours earned by the student at a private institution or an out-of-state institution.

5. Any credit hours not normally eligible for state formula funding.

Texas Higher Education Coordinating Board Rule §13.100-13.109, effective Nov. 22, 2005, reflects changes from the 79th legislative session for public higher education institutions in Texas and amendments to Texas Education Code §54.068 and §61.0595.

Repeat Course Fee for Third Repeat

San Jacinto College will charge a higher tuition rate to students registering for a course for the third or subsequent time. This charge will apply to any course that the student has already attempted twice and appears on their transcript. Upon the third or subsequent enrollment, an additional tuition of $60 per credit hour will be charged. This additional tuition charge will be assessed for all registered students as applicable.

Tuition Rebate Program

Students transferring to a Texas senior college or university may qualify for a $1,000 rebate if they have attempted no more than three semester credit hours above the minimum number of hours required for their baccalaureate degree. Attempted hours include every course for which the student has registered, as of the official census date, in every term, including: college preparatory courses taken for credit, repeated courses and courses from which the student withdraws and all credit by examination, except for the first nine hours and dual credit courses. Students initiating their undergraduate education at San Jacinto College should carefully follow approved degree plans in order to maintain eligibility for this program. Senior universities are required to provide students with forms and instructions for requesting the rebate at the time the student applies for a baccalaureate degree.

Texas Education Code §54.0065 established this tuition rebate program for certain undergraduate students, according to legislation passed in 1997 by the 75th Texas Legislature and amended in 2003 by the 78th Texas Legislature. The website www.collegefortexans.com includes more detailed information about the tuition rebate program and also includes a directory of institutional contacts.

Paying for College

Pay as You Go! Important Information Regarding Payment Deadline For Classes

Effective Fall 2011 (term 201210), the College implemented the Pay-As-You-Go system. Students are encouraged to pay in full when they
register. After the PAYMENT DEADLINE for each term, all students who have a balance due or have not made a payment will be dropped as outlined below. This applies to both totally unpaid and partially unpaid registrations. The drop process will include all registrations.

**Balance Must Equal Zero**

This payment system is run daily during the entire term after the payment deadline. Students registering for the first time or re-registering after the payment deadline will be required to pay in full the same day they register. The balance due must be zero.

**Example:** Students who register on Monday must be paid in full by 11:59 p.m., on the same Monday. After the payment deadline, the registration system (SOS) will be offline every night from 12 a.m. to 3 a.m., to remove registrations that are totally or partially unpaid.

If a student’s balance does not equal zero, or less, the following actions are taken:

**Totally Unpaid:** A student who registered for courses and has not made any payment, nor has any financial aid, third party billing or scholarship been applied to the account. Registrations for all courses will be removed and the student will receive an email notification of this action.

**Partially Unpaid:**

1. A student registered for some courses and paid for them but then added additional courses and did not pay for the added courses.
2. A student dropped a course, then added a course and did not pay the difference.
3. A student financial aid, third party billing, or scholarship applied to the account did not cover the entire cost.

If a student’s balance does not equal zero, the registration will be adjusted to bring the account balance to zero. Courses with the latest start date will be dropped first. Then courses will be dropped according to registration date and time. These courses will be dropped the following business day. Students will receive an email notification of this action.

Students must be sure their financial aid, third party billing or scholarship is applied to their account.

**Methods of Payment**

**SAN JACINTO COLLEGE ACCEPTS THE FOLLOWING METHODS OF PAYMENT:**

**WEB PAYMENTS**

1. **Credit Cards** – American Express, Discover, MasterCard, or Visa.
2. **Debit Cards** – Must have a MasterCard or Visa affiliation.
3. **WEBCheck** – Must be an individual checking or savings account.
   a. Company checks or loan checks from credit cards or other financial institutions should not be used online. They will be rejected and result in a $30 returned check fee.
   b. The College assesses a **$30 processing fee** for each stopped-payment or returned check. An individual who has had a check returned must then pay the College by cash, cashier’s check, money order, or credit card.
4. **Installment Payment Plans** that are set up online will capture the scheduled method of payment and use that for future dated payments. The students may use the Student Account Suite to change a scheduled method of payment for the automated payment process.

**IN-PERSON PAYMENTS AT ANY CAMPUS BUSINESS OFFICE**

1. **Credit Cards** – American Express, Discover, MasterCard, or Visa.
2. **Debit Cards** – Must have a MasterCard or Visa affiliation.
3. **Debit Cards** – PIN Based.
4. **Checks**
   a. **Personal checks** in which the student is an authorized signer on the account or if the authorized signer on the account is present may be converted to an electronic payment from the account. These are referred to as POP checks. The cashier will inquire as to whether a student agrees to have the check converted to an electronic payment. If the student agrees, the check will be returned to the student upon completion of the cashiering transaction along with an electronic agreement receipt.
   b. **Personal checks** in which the student is NOT an authorized signer on the account and the authorized signer is not present will be processed as a normal paper check and included with the normal deposits of the College.
   c. **Company checks, cashier checks, money orders, or loan checks from credit cards or other financial institutions** will be processed as a normal paper check and included with the normal deposits of the College.
   d. The College assesses a **$30 processing fee** for each stopped-payment or returned check. An individual who has had a check returned must then pay the College by cash, cashier’s check, money order or credit card.
5. **Cash** – Legal currency of the United States.
6. **Third Party Payment** – Payments made by third party vendors via letters, purchase orders, or invoices must be presented in
person to any campus business office, each semester, in order for the student account to be updated. Students are liable for any unpaid balances.

7. Exemptions/Scholarships – Documentation must be submitted in person to any campus business office, each semester, in order for the student account to be updated. Students are liable for any unpaid balances.

San Jacinto College will not be responsible for multiple holds being placed on a credit or debit card by the bank or the card issuer.

Students paying by cash or check who want to pay in person at the business office must pay during the regular business hours on the business day they register.

Installment Payment Plan (IPP)

An installment payment plan (IPP) is available at any campus business office and on the SOS online registration system. Students have the opportunity to pay tuition and fees in four payments. The terms include the following: Pay 25 percent of eligible tuition and fees when setting up the payment plan and pay three additional 25 percent payments on specified dates for each term. There is a $25 fee for this service that is prorated over the payment period. Late payments are charged $25 each. Students may use the SOS system to set up automatic payments using a credit card, checking or savings account.

Students who utilize the IPP will still need to follow the regulations for withdrawals and refunds. Students who withdraw from or add one or more classes still must pay the installments on time. The system will recalculate any changes to the future dated installments and prevent loss of registration. No installment payment plan is available for books, supplies, or cash advances. The financial aid section describes other forms of financial assistance. Installment plans must be paid in full before another installment plan can be initiated.

Credit Card Account Verification – Authorization

An individual who uses a credit card to pay tuition or fees authorizes the College to communicate with the credit card issuer and/or financial institution for the limited purpose of verifying information related to use of the credit card at the College, such as verification of account number, of a transaction, or of a student’s signature.

San Jacinto College will not be responsible for multiple holds being placed on a credit or debit card by a bank or the card issuer.

Delinquent Accounts

Currently enrolled students who are delinquent in repaying a loan, are responsible for a returned check, or have failed to pay appropriately and on time any other debts to San Jacinto College (not including library and traffic fines) will receive warning notices informing them that they must pay their debts by a certain date or be withdrawn from all classes. If they do not pay by the designated date, the College may withdraw them from all classes, and they may not be reinstated during that term.

Students must pay all debts—including but not limited to: tuition, fees, fines, returned check penalties, lost equipment, rescinded financial aid, College generated loans and restitution for loss of or damage to College property before they may re-enroll, receive a diploma, or have a request for an official transcript honored.

In the event of failure to pay the Installment Payment Plan (IPP) or Financial Aid Short Term Loan (FASTL) at its maturity, and if the same is placed in the hands of an attorney or collection agency, the student shall be responsible for all expenses and expenditures, cost of attorney and/or collection services incurred, protecting the College’s interest, rights, and remedies on the Installment Payment Plans or Financial Aid Short Term Loan or returned checks.

Delinquent accounts sent to a collection agency may be reported to the credit bureau.

The College charges a late fee of $25 for late payment of any IPP’s or FASTL’s. The College assesses a $30 processing fee for each stopped-payment or returned check. Returned checks include electronically converted checks that have been rejected by the College bank. An individual who has had a check returned must then pay the College by cash, cashier’s check, money order or credit card.

A student who is in default on a government student loan for attendance at San Jacinto College may not receive an official academic transcript or diploma unless the student has made six consecutive voluntary monthly payments on the defaulted loan.

Refund Policy

To be eligible for a refund, students must officially drop individual courses or completely withdraw from the College by the deadline in the Refund Schedule. Students may find the specific dates for the Refund Schedule online for each term. Specific provisions of the Texas Administrative Code, Title 19, Part I, Chapter 21, Subchapter A, Rule § 21.5 “Refund of Tuition and Fees at Public Community/Junior and Technical Colleges,” govern the refund schedule. Only the Texas Legislature or the Texas Higher Education Coordinating Board, as authorized by the Legislature, can alter this schedule.

The College will process refunds only after completion of all other registration responsibilities.

The College will grant refunds for re-determined legal residence only if the student presents proof to the Enrollment Services Office on or before the 12th class day of the Fall or Spring term, or the eighth class day of the Summer session.

Refunds do not include the international student fee.

Credit Refunds or Financial Aid Disbursements-Payments to Students
Higher One, Inc. (Higher One), the technology and financial services company focused on the higher education market, has been selected to electronically distribute semester credit hour refunds and financial aid disbursements to San Jacinto College students. They do not process dual credit, Continuing and Professional Development, or undocumented students and Parent Plus Loans.

San Jacinto College uses Higher One to provide a more efficient, safe, and convenient refund disbursing process. This method allows students to have quicker access to funds and provides more options for disbursements of Federal financial aid and college credit refunds due to changes in enrollment.

All San Jacinto College students (except the group identified above) enrolled as of the first day of class will receive a SanJac Card in the mail with instructions on how to log on to a secure website. The student will be responsible for the card received in the mail as, this will be their key to selecting their refund preference. The SanJacCard will be the official method of payments to students and must be retained for the duration of enrollment with the College. Students can reorder an inactive card at any campus business office. There is a $20 replacement card fee payable through Higher One for lost cards that have previously been activated by the student.

Students will be asked to confirm their primary email and mailing addresses and select how they would like to receive their refund from Higher One. Students will be given multiple electronic options including direct deposit to the OneAccount; an optional, no-minimum balance, no-monthly-fee, FDIC-Insured checking account provided by Higher One; or an Automated Clearing House (ACH) transfer to a bank account of their choice. The card also acts as a Debit MasterCard® with acceptance worldwide. Students also have the capability to sign up to receive text and/or email notifications and have access to pay bills online through a secure website.

In addition to the refund disbursement process, Higher One educates the campus community on the changes and benefits to the process. Higher One also collects and maintains student bank account information in a safe and protected manner. Students and parents are assured that Higher One handles all customer service inquiries from students or administration staff in an efficient, confidential, and secure manner.

### Course Withdrawal / Dropping Courses

Students who officially drop an individual course or withdraw from all courses will receive a percentage of the refundable tuition and fees they paid, depending on the effective date of the withdrawal, in accordance with the state refund schedule. Please see the Refund Table below.

Specific withdrawal dates and refund dates apply to each course based upon start date and class length. The College website contains a table with details for the different course lengths and appropriate refund periods and percentages. Refund percentages are 100 percent prior to the first day of class, 70 percent, 25 percent or 0 percent based on specific dates. The College does not allow 100 percent refunds during course drops/adds after the first day of class.

Once a student pays tuition and fees, or has financial aid applied, they are considered officially registered until they complete the term or drop an individual course, or withdraw from all courses. Simply not attending class or telling the instructor does not constitute course drops. Course drops/withdrawals become official and effective the date they are completed online or in person, regardless of the date the student last attended class and even if the student never attended class. A student unable to appear in person must contact the Enrollment Services Office.

Canceling a check will not cancel registration nor constitute a drop/withdrawal. Drops/withdrawals may reduce the amount of an individual payment plan (IPP) but the student is responsible for any remaining balance. The College may apply the appropriate refund for College initiated actions, such as but not limited to, canceled classes, schedule adjustments to be in compliance with College policy, or underpayment of tuition and fees subject to the pay-as-you-go process.

### Financial Aid

#### Campus Financial Aid Services Office

The primary purpose of the campus Financial Aid Services Office is to provide financial assistance in the form of grants, scholarships, loans, and employment opportunities to qualified students who, without such assistance, would be unable to attend college.

### REFUND TABLE (Semester Credit Hour Charges retained by the College)

<table>
<thead>
<tr>
<th></th>
<th>100% Refund-All Charges credited back to the student's account</th>
<th>70% Refund-The College retains 30% of the original charges.</th>
<th>25% Refund-The College retains 75% of the original charges.</th>
<th>0% Refund-The College retains 100% of the original charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas Resident</td>
<td>$0</td>
<td>$12.90 per semester credit hour</td>
<td>$32.25 per semester credit hour</td>
<td>$43.00 per semester credit hour</td>
</tr>
<tr>
<td>(In-District) Tuition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Texas Resident</td>
<td>$0</td>
<td>$25.20 Per semester credit hour</td>
<td>$63.00 per semester credit hour</td>
<td>$84.00 per semester credit hour</td>
</tr>
<tr>
<td>(Out-of-District)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition</td>
<td>$0</td>
<td>$40.20 per semester credit hour</td>
<td>$100.50 per semester credit hour</td>
<td>$134.00 per semester credit hour</td>
</tr>
<tr>
<td>Non-Texas Resident</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The College retains either 0%, 30%, 75%, or 100% of the original charge related to any refundable course fees or the general service fee depending on the specific date of withdrawal.
Students should contact the campus Financial Aid Services Office on their campus for assistance in completing financial aid or scholarship applications, and for answers to specific questions about the financial aid process.

**Eligibility**

In general, to be eligible for financial aid, students must:

1. Be a U.S. citizen or an eligible non-citizen.
2. Have a high school diploma, GED or its recognized equivalent.
3. Be enrolled in a certificate or degree program.
4. Be making satisfactory academic progress.
5. Not be in default of a federal or state student loan or owing a repayment on any federal grant.
6. Meet requirements specific to the financial aid program for which students are applying.
7. Enroll for at least the minimum number of hours required by each program.

**Eligibility Date (Census Date)**

If students register for a term and decide that they do not want to attend, they must withdraw themselves from their courses before classes begin. If they do not withdraw themselves, they may receive grades of F and/or FX in registered courses which will impact their grade point average and incur a potential liability for financial aid recipients.

Awards are based on enrollment status for each term. If students enroll for less than 12 semester hours or if they drop classes, their funding will be adjusted. Also, if they do not attend class(es) or if they stop attending class(es), their aid may be adjusted or canceled. If students are enrolled in part-of-term classes, eligibility will be calculated and payment made after the part-of-term classes begin.

**Concurrent Enrollment**

Federal regulations prohibit a student from receiving financial aid funds under Title IV programs while enrolled at more than one college or institution at the same time. A San Jacinto College student who registers concurrently at another school and receives Title IV aid at both schools must officially withdraw from one of the schools so his/her financial aid can be processed at the appropriate school. If the student does not officially withdraw, all San Jacinto College financial aid will be rescinded, and the student will be accountable for reimbursement of these funds to the College.

**Financial Aid Services Steps**

Completing the following steps by the priority processing date will increase the chance of the financial aid application being reviewed prior to the beginning of school:

1. Apply for admission to San Jacinto College online at www.san Jac.edu. Returning students who have not attended San Jacinto College during the past year may need to submit a new application. Please keep in mind that students must be admitted to San Jacinto College prior to any financial aid awards being made.
2. Submit an official high school (or GED) transcript to the San Jacinto College campus Enrollment Services Office.
3. Transfer students must submit official college transcripts from each institution attended that includes all classes attempted and file a request with the Enrollment Services Office to have the transcripts evaluated. Students who have taken classes outside the United States must have courses evaluated by a foreign transcript evaluation company, at his/her own expense, to determine the highest credential earned.
4. Register with Selective Service at www.sss.gov if a student is a male, age 18 to 25.
5. Apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.gov. Our school code is: 003609
6. Reply immediately to all communication from the College that requests additional information.
7. Register for classes.

For financial aid disbursement see Credit Refund and Financial Aid Disbursement section.

**Procedures**

Students should apply for federal funding and follow the progress of their financial aid application on the Web.

1. Students can follow the progress of their financial aid application by viewing the SOS website, under the “My SanJac” link at www.sanJac.edu, for the following actions:
   - Check the status of a financial aid file, including documents that are requested
   - View financial aid awards
   - Determine if funds have arrived at the school
   - Determine if funds were transferred to your SanJac Card
   - Determine remaining eligibility for future terms
   - Check any updates to financial aid account
   - View grades and academic transcript
2. If students have been awarded financial aid they can expect the aid to be posted as “authorized” aid to their account at the time of registration. The updating occurs on a regular and frequent basis. If the aid has not been authorized within 24 hours of registration, students should contact the campus Financial Aid Services Office.
to determine if a problem exists. Financial aid funds are officially applied against student accounts approximately 30 days after the start of the semester. If a student is enrolled in a later part-of-term class, funds will be applied after the class begins. If student fees are paid by a third party, students MUST visit the campus business office to sign the paperwork to have the third party payment applied. Once payment has been applied, the PAID flag is set on the account. The PAID flag prevents the purging of registration for non-payment.

3. Once aid has been authorized, students will also be able to go to the campus bookstore to charge books and supplies to their grants, loans, and some scholarships within 24 to 48 hours. Students will need their student ID number, a photo ID, and a copy of their class schedule to use any available funds. Students should check with the campus bookstores or the campus Financial Aid Services Office for the dates they may charge.

4. Any unused balances from financial aid funds (grants and/or loans) will be transferred to the student’s San Jac Card. After attendance has been verified, financial aid balance refunds are issued 30 days after the first day of classes. Students may track the status of their balance refunds by logging into SOS and viewing the “Account Summary by Term” section under “My Financial Aid.”

5. If students register for classes and financial aid is authorized on their account, and they do not attend San Jacinto College, they must contact the Enrollment Services Office and the campus Financial Aid Services Office before the first day of class. Failure to do so could result in being billed for accumulated charges.

6. If students have been awarded financial aid for Fall and/or Spring terms and they decide not to register for a term, their financial aid awards will be canceled for the terms in which they don’t attend.

**FAFSA School Code (003609)**

The Free Application for Federal Student Aid (FAFSA) determines eligibility for aid. The FAFSA is available online. The San Jacinto College school code 003609 should be reported on the application, regardless of the campus you will attend. Go to: www.fafsa.gov for details.

**Deadlines**

Students must apply for financial aid each year. If students wish to receive priority consideration, they should apply as soon as the FAFSA is available, usually after Jan. 1. Awarding of aid is done in a batch process with the student demonstrating the highest need receiving first consideration and subject to the availability of funds. Funds for most financial aid programs are awarded on the basis of demonstrated financial need (except unsubsidized Stafford and PLUS loans).

Awarding of aid will begin approximately the first working day of June. However, any financial aid applications completed after the last working day of June for Fall; October for Spring; or April for Summer will not be processed prior to the start of the term. An application is considered complete when all documents needed by the campus Financial Aid Services Office and the Enrollment Services Office are on file; and/or spouse/parents, if applicable, have provided complete and correct data.

Student applications completed after the deadlines above may still receive aid. However, they will have to pay for their own tuition, fees, books, and supplies at the time of registration.

**Before Beginning a Free Application For Federal Student Aid (FAFSA)**

Students (and parents) will log on to FAFSA on the Web and other FSA websites—the National Student Loan Data System (NSLDS), StudentLoans.gov, and Studentaid.gov—with a username and password that they create. This removes the need for the personal identification number (PIN) and the use of personal identifiers such as name, birthdate, and Social Security number.

Users do not need to do anything to prepare for it; when they first log on to one of the above sites on or after that date, they will be asked to create a username and password. If they have a PIN, they will have the option to link it to their new FSA ID, which will allow them to immediately use the ID on the above websites rather than wait 1–3 days while their identifying information is confirmed.

**Email Address**

Students should be sure to include the email address they check most frequently on the FAFSA to ensure faster correspondence from the Department of Education. Specifically, students will receive a link where they will be able to view the analysis of the data they submitted on their FAFSA. In addition, the financial aid office will use this email address to correspond with them until their official San Jacinto College email address has been assigned. All students are strongly encouraged to check their San Jacinto College email account at: www.sanjac.edu/email. San Jacinto College will only send electronic communications to this email account.

**Major Sources of Financial Aid**

For additional information about federal financial aid programs, including eligibility guidelines, students are encouraged to visit the Federal Student Aid website at www.studentaid.ed.gov. For information about state assistance, students should visit the Texas Higher Education Coordinating Board website at www.collegefortexans.com.
FINANCIAL AID

Types of Financial Aid Programs

Grants (Aid That Does Not Have To Be Repaid)

1. Federal Pell Grants are available to students who demonstrate financial need within the established federal guidelines. To determine need, the U.S. Department of Education uses a standard formula, established by Congress, to evaluate the information students and/or their parent/spouse provides on the FAFSA. The formula produces an Expected Family Contribution (EFC) that is an indication of how much a student’s family is expected to financially contribute toward the cost of their education. For those who qualify, the Pell Grant is intended to be the primary award of their financial aid package and is the starting point for financial assistance at San Jacinto College. Pell Grants are awarded only to the undergraduate student who has not earned a bachelor’s or professional degree from any institution including foreign schools. The amount of aid is based upon the number of hours enrolled and the EFC determined by government analysis of the information submitted by the family on the FAFSA.

2. Federal Supplemental Educational Opportunity Grant (FSEOG) is limited by the availability of funds and is only awarded to those with exceptional financial need. Priority will be given to Federal Pell Grant recipients.

3. Texas Public Education Grant (TPEG) is authorized by the State of Texas from tuition revenues generated by San Jacinto College. TPEG is available to those who demonstrate financial need. The amount of the award varies, depending upon residency, the number of hours enrolled and the availability of funds.

4. TEXAS (Toward Excellence, Access and Success) Grant is a need-based grant authorized by the State of Texas. Since San Jacinto College is a two-year college, the state only authorizes San Jacinto College to offer Renewal Year awards. To receive consideration, students must (1) have calculated financial need; (2) be residents of Texas; (3) be enrolled as an undergraduate and received an Initial Year award prior to Fall 2014; (4) be registered with Selective Services or be exempt; (5) have not been convicted of a felony or crime involving a controlled substance; and (6) maintain satisfactory academic progress which consists of a 2.5 GPA and successful completion of 24 semester credit hours for the year. The amount of TEXAS Grant paid is based upon the number of hours enrolled.

5. Texas Educational Opportunity Grant (TEOG) is also a need-based grant authorized by the State of Texas. To receive consideration, students must be Texas residents, be enrolled in a certificate or associate degree plan at a two-year institution, have an EFC no greater than $4,800 for the Initial Year or demonstrate financial need for the Renewal Year (as determined by a standard need-analysis process), not have been convicted of felonies or crimes involving controlled substances, not have associate degrees or baccalaureate degrees and not be concurrently receiving a TEXAS Grant. The amount of TEOG paid is based upon the number of hours enrolled.

Note: Students who are transferring to San Jacinto College and are eligible to receive a Renewal TEXAS Grant or Renewal Texas Educational Opportunity Grant must notify the campus Financial Aid Services Office by Oct. 1 for the Fall and by Feb. 1 for the Spring or eligibility to receive consideration will be forfeited.

Funding for all grant funds, except Pell Grant, is limited and subject to availability. Not all students who qualify will receive a grant.

Loans (Aid That Must Be Repaid)

San Jacinto College participates in the William D. Ford Direct Loan Program. The Direct Loan program allows students or parents to borrow loan funds directly from the Federal Government. Direct Lending provides two types of education loans that are used by many San Jacinto College students and parents. The Direct Subsidized and Unsubsidized Loans are available to students, while the Direct Parent Loan for Undergraduate Students (PLUS) is available to parents of undergraduate students. Both loans require that students enroll in a degree program at the half-time level or above. Loans cannot be disbursed to first-time, first-year borrowers prior to thirty (30) days from the start of the semester.

The Direct Loan Subsidized is a low-interest, long-term loan available if students demonstrate financial need. Students are not charged interest before repayment begins or during authorized periods of deferment. The federal government “subsidizes” the interest during these periods while students are enrolled at least half-time (six semester credit hours).

Beginning with the 2013-14 award year, there are new regulations from the Dept. of Education that may affect subsidized loan eligibility. This regulation applies to subsidized (not unsubsidized or PLUS) loans disbursed to first-time borrowers on or after July 1, 2013. First-time borrowers are defined uniquely for the new 150% rule: the student has no outstanding balance on a loan or the student has previously received loans which are paid in full. If the student is a first-time borrower under this law, he/she is only eligible for the subsidized loan for a period of 150% of the published program. Visit studentloans.gov for more details on this law.

The Direct Loan Unsubsidized, which is not awarded on the basis of demonstrated financial need, is available to an independent student or a qualified dependent student, who needs additional assistance. Students will be charged interest from the time the loan is disbursed until it is paid in full. If students allow the interest to accumulate while in school or during periods of nonpayment, it will be capitalized—that is, the interest will be added to the principal amount of the loan when it enters repayment and additional interest will be based upon the higher amount.
Direct Parent Loans to Undergraduate Students (PLUS) are available to parents of dependent students, not to exceed the cost of attendance, minus any financial aid awarded to students. These loans have a higher interest rate and the borrower is responsible for paying all the interest that accrues. A credit check is required for a Parent Loan. Dependent students whose parents have been denied a PLUS Loan may qualify for up to $4,000 in unsubsidized Federal Stafford Loan funds.

To apply for the Direct Loan (subsidized and unsubsidized) program, students must complete the FAFSA and submit the San Jacinto College District Loan Request Form. Before funds are disbursed, students must sign their Master Promissory Note (MPN) and complete their entrance counseling session at www.studentloans.gov.

To apply for the Direct PLUS, students must complete the FAFSA and parents must complete the loan certification request at studentloans.gov. Before funds are disbursed, parents must sign their Master Promissory Note (MPN) and complete an adverse credit counseling session, if necessary.

Students awarded loans who graduate or drop below half-time enrollment status are required to complete an exit counseling session. The exit counseling session helps students understand their rights, responsibilities, and repayment options as a borrower. Students must log onto www.studentloans.gov to complete the exit counseling session.

Note: Students that have previously borrowed Subsidized and Unsubsidized or PLUS loans under the FFEL program will graduate owing loan amounts to two different entities.

Scholarships (Aid That Does Not Have To Be Repaid)

A variety of scholarships, many funded through the San Jacinto College Foundation, are available from both institutional and private sources. Scholarship selection criteria may be based on demonstrated need, academic merit, or other specific qualifications, depending on the funding source. The funding source also determines the amount of the scholarship award. During certain times of the year, an online San Jacinto College Foundation scholarship application is available. All scholarships must be reported to the Financial Aid Office. Deadline dates vary. For additional information, students are encouraged to contact the San Jacinto College Foundation well in advance of these dates.

Employment (Aid That Must Be Earned)

Students must inform the College if they want to participate in the Federal Work Study (FWS) program.

Federal Work Study (FWS) is a federal work program that provides part-time on-campus employment to students if they demonstrate financial need. Students will earn at least minimum wage (many jobs pay more) and may work up to 19.5 hours per week. Information regarding employment opportunities for Federal Work Study can be obtained at each campus career and employment center. It is important to remember, an offer of FWS does not guarantee a job or job placement.

Part-time employment is available through various departments and/or the career and employment center. Students should contact the appropriate campus office for additional information.

Academic Requirements for Receiving Financial Aid

The Higher Education Act of 1965 (as amended) and the Texas Higher Education Coordinating Board mandate institutions of higher education to establish a standard of satisfactory academic progress for a student to receive financial aid. This standard must apply to a student's entire academic history, whether financial aid was received or not. In order to remain eligible to receive aid at San Jacinto College a student must meet these standards, as approved by the San Jacinto Community College District Board of Trustees.

Satisfactory Academic Financial Aid Components

San Jacinto College requirements for receiving financial aid include the following components:

1. Grade Point Average (GPA) Component

San Jacinto College uses the 4.0 grade point average system and numerical code:

| 4.0 = A | 3.0 = B | 2.0 = C | 1.0 = D | 0.0 = F |

A student is expected to maintain a minimum cumulative GPA of 2.0 based upon the aggregate number of hours attempted at San Jacinto College.

2. Pass Rate Component

A student is expected to pass a minimum of 75 percent of all hours attempted at San Jacinto College. As of the Fall 2011 term, all transfer hours are included in the pass rate calculation.

3. Time Frame Component

A student receiving financial aid funds will be expected to complete his/her San Jacinto College educational objective or course of study within the first 90 hours attempted, including college preparatory and transfer hours.

Grades of F, FX, I, NG, W, repeated courses, ESOL, and college preparatory courses are counted in the aggregate total number of hours attempted. However, for repeated and ESOL courses, only the higher grade is used in computing the cumulative grade point average and pass rate. In addition, students will not receive aid for the third attempt if the class has previously been passed unless the program of study requires students to take the course more than twice.
FINANCIAL AID

Review Procedure
Satisfactory academic progress will be measured for all students, not just students who apply for financial aid. Progress will be measured at the end of each term for all students who are enrolled in credit classes and when transfer work is evaluated. All students are expected to be in compliance with the Academic Requirements for receiving financial aid at the time they receive aid.

1. Academic Standards and Pass Rate
The San Jacinto College campus Financial Aid Services Office will determine whether or not students have successfully passed at least the minimum expected percentage (75 percent) of hours attempted at San Jacinto College with at least the minimum required GPA (2.0). Grades of A through D will be considered as term hours successfully passed.

Audited courses, credit earned by placement tests, repeated courses, or programs not approved by the U.S. Department of Education are not eligible for federal financial aid funding.

2. Time Frame Component
During each review, the Financial Aid Services Office staff will determine the aggregate number of hours a student has attempted. Courses for which a student has received an incomplete, from which he/she has withdrawn, which have been repeated and which are defined as college preparatory classes will be counted in the aggregate. Once a student has attempted 90 hours, the student is ineligible to receive further consideration for financial aid. During the last term in which the student will reach the 90-hour limit, the student may receive aid for the number of hours for which he/she is enrolled.

Transfer Students
Under the San Jacinto College Academic Requirements for Receiving Financial Aid, transfer hours must be taken into account in determining whether or not a student is in compliance with the Time Frame and Pass Rate Components. Transfer hours are not used in the computation of GPA components. A transfer student must have a transcript from each college/university attended, including foreign schools, on file in the Enrollment Services Office and must have the transcript(s) evaluated by the Enrollment Services Office.

A student who has attended a school outside the United States must also have the transcript(s) evaluated, at his/her own expense, by a foreign transcript evaluation company to determine the highest credential earned.

Warning
A student who has not met the Standards of Academic Progress, except for Time Frame Component, will be placed on financial aid warning. A student, if otherwise eligible, may receive consideration for financial aid during the warning term.

Suspension
A student who fails to meet the standards of academic progress by the end of the term of warning or who has reached the 90-term hour Time Frame Component limit, will be placed on financial aid suspension and is not eligible to receive further consideration for financial aid.

Probation
A student under this status is on an appeal and eligible for aid. Appeal students are required to meet appeal conditions to maintain eligibility, which includes following an academic plan.

Academic Plan
A student who completed and met the conditions of the appeal during the probation term, but is still not making satisfactory academic progress, will be placed on an Academic Plan. While on an Academic Plan, the student must continue to meet the conditions of their appeal within a specific point in time as stated on their educational plan.

Regaining Eligibility
Except for the Time Frame Component, a student who has been suspended may regain eligibility for financial aid by:

• Enrolling at his/her own expense and bringing himself/herself into compliance with the requirements.
• Filing an appeal with the campus Financial Aid Services Office four weeks prior to the end of the semester.

A student who has met the maximum Time Frame Component must file an appeal to be able to receive consideration for financial aid.

The appeal must be in writing and supporting documentation regarding special circumstances must be provided. Appeals are considered for extenuating circumstances such as injury, illness, and death in the immediate family, or undue hardship. A student must provide sufficient supporting information to explain his/her reason for lack of progress. In addition, other documentation will be required which is listed on the appeal form.

If an appeal is approved, the student is placed on financial aid probation for the term approved in the appeal and required to meet the conditions stated on the approval letter without exception to continue to receive aid under the Academic Plan status. If a student does not meet the conditions of the appeal, the student will be placed back on financial aid suspension.

If an appeal is denied, the student may file a written request to meet with the Appeal Committee, which responds to all appeals in writing. If the student needs to request a personal appearance, only the student is allowed to present his/her case to the committee.
Transfer Monitoring Students

Transfer Monitoring (TM) is the process by which schools must verify with the Department of Education through the National Student Loans Database System (NSLDS) a student’s eligibility for financial aid. Students are subject to transfer monitoring if they begin their study mid-year or during the Summer at San Jacinto College. Per regulation, during the seven-day period after their name is added to the NSLDS TM list, the College may not authorize or disburse Title IV aid to their account. It may take longer than seven days if, through NSLDS, any issues are identified that need to be resolved. During the seven-day NSLDS review, financial aid funds are not available to students and funds will not show on their financial aid file, even if previously offered. Students may determine when their file was put on TM hold and when it will go off hold by accessing their SOS account.

Students may take the following steps to check on their status:

1. Log into SOS
2. My Registration, Financial Aid & Student Record
3. My Student Record
4. View Holds

Any aid awarded to a student whose record goes on TM hold will be automatically reinstated after the seven-day period, unless there is an unresolved issue.

Withdrawals, Grades and the Return of Title IV Funds

Students receiving federal monies to fund their college education are subject to the federal regulations requiring the student (and parent in the case of a PLUS Loan) and/or institution to repay any unearned portion of the federal funds awarded, credited or disbursed on behalf of the student (and parent) if the student completely withdraws, officially or unofficially, from classes prior to completing more than 60 percent of the term and parts of term in which the student enrolled.

The federal funds that are subject to “Return to Title IV (R2T4)” are the Pell Grant, Federal Supplemental Education Opportunity Grant (SEOG), Subsidized and Unsubsidized Stafford Loans, and Parent Loans for Undergraduate Students (PLUS).

Additional Restrictions for Stafford and PLUS Loans

Subsidized and Unsubsidized Stafford Loans and Parent Loans for Undergraduate Students (PLUS) have additional restrictions. Students and parents may owe the College the full loan amount for loans certified by San Jacinto College after the mid-point of the student’s payment period or the full amounts of second or subsequent loans disbursed, in addition to any indebtedness created by the return calculation, should the student officially or unofficially withdraw.

Official Withdrawals

Official withdrawal occurs when the student completes the withdrawal process over the Web, or through the Enrollment Services Office. The student is considered to have officially withdrawn from San Jacinto College when all courses are dropped for the semester. After the student is completely, officially withdrawn, the Financial Aid Services Office calculates the amount of earned and unearned aid by the student for the payment period and notifies the student at the address on file in the Enrollment Services Office of any indebtedness created by the complete official withdrawal.

Unofficial Withdrawals

The federal regulations consider any student who fails to successfully complete at least one course due to non-attendance during the term to have unofficially withdrawn. After grades are posted at the end of each term, financial aid services completes the return calculation for any Title IV financial aid recipient who fails to successfully complete at least one course. If San Jacinto College cannot determine the official withdrawal date, the mid-point of the student’s enrollment may be used as the effective date of the complete withdrawal. Notification is sent to the student at the address on file in the Enrollment Services Office.

Attendance

Students are required to attend their classes and complete their assignments, including assignments in Blackboard for online classes, throughout the semester. Those who fail to meet this requirement will have their aid adjusted.

San Jacinto College reviews attendance after the census and middle of the semester. Students who fail to attend any class meetings as of the census date will lose their Financial Aid eligibility for those classes. Students who stop attending prior to the 60 percent point of the semester will lose part or all of their Financial Aid eligibility. If students manage to be successful for those classes, they can receive a retroactive disbursement at the end of the term for the classes in question. Otherwise, students will have to enroll in classes that start in later parts of term within the same semester to regain their financial aid eligibility.

Attendance for online/distance learning classes is defined by the U.S. Department of Education as participating in class or being engaged in an academically related activity, such as contributing to the class online discussion board. Documenting that a student has logged into an online class is not sufficient, by itself, to demonstrate academic attendance by the student.

Debts to the Department of Education

If the student owes the Department of Education, the eligibility to receive federal aid at any school will be lost until the debt is repaid or acceptable repayment arrangements are made with the National Payment Center of the Department of Education. San Jacinto College will assign any debt due to the Department of Education for processing.
Debts to San Jacinto College

Funds owed to San Jacinto College are subject to San Jacinto College collection procedures.

Note: Once tuition and fees are paid or financial aid is applied, students are considered officially registered until they complete the term or officially withdraw. Students who have never attended class or classes are not eligible for financial aid funds. Students must submit withdrawal requests electronically or in writing on forms from the Enrollment Services Office. See the Official Withdrawal section. Students are urged to take class enrollment and attendance seriously, consider the amount of time required to successfully complete a class, and plan the number of hours in which they enroll. If need be, students must officially withdraw; simply not attending class or telling the instructor does not constitute withdrawal.

Fraud or Financial Aid Abuse

San Jacinto College is required by U.S. Department of Education Office of the Inspector General to report all cases where activities are perceived to be potential fraud or abuse of federal funds.
Veteran Information

Virtually all academic, vocational and technical courses leading to a degree or certificate at San Jacinto College are approved for veteran training. There is a Veteran Student Success Center (VSSC) located on each of the three San Jacinto College campuses.

Students who expect to receive veteran education benefits while attending San Jacinto College should contact the Veteran Student Success Center (VSSC) located on their desired campus.

Disabled veterans who plan to receive the Vocational Rehabilitation education benefit should contact the counseling and training office at the VA Regional Office in Houston at 713.383.1985, and then contact the VSSC located on the campus they will attend.

In certain cases, dependents of veterans may be eligible to receive VA benefits. For more information, contact the campus VSSC.

For more information on VA eligibility requirements visit www.gibill.va.gov or the VSSC website at www.sanjac.edu/veterans.

Steps in Applying for Veteran Benefits

Students applying for Federal VA education benefits should:


2. Submit the DD-214 member 4, 2 or 7. DD-214 member 1 is not acceptable.

3. Submit official transcripts from all schools attended including military and non-accredited schools.

To request military transcripts for Army, Navy, Marines and Coast Guard go to: https://jst.doded.mil. To request Community College of the Air Force transcripts go to: www.au.af.mil.

4. Submit a copy of the Certificate of Eligibility (COE).

All documents should be taken to the VSSC located on the campus.

Veterans who have previously used VA educational benefits at a different college or university should:


2. Submit the DD-214 member 4, 2 or 7. DD-214 member 1 is not acceptable.

3. Submit official transcripts from all schools attended including military and non-accredited schools. To request military transcripts for Army, Navy, Marines and Coast Guard go to: https://jst.doded.mil. To request Community College of the Air Force transcripts go to: www.au.af.mil.

4. Submit a copy of the Certificate of Eligibility (COE).

All documents should be taken to the VSSC located on the campus.

Class Attendance

The VA requires class attendance for students to be eligible for VA benefits; however, only the last day of attendance is reported. An eligible person will be paid only to the last day of class attendance when he/she withdraws from school.

Students receiving veteran benefits should not stop attending classes without properly withdrawing. Students should formally withdraw online or in person through the Enrollment Services Office, and notify their campus VA Certifying Official of the last day of attendance before they withdraw. Students may have to pay back money received for such courses.

Course Withdrawal

The VA does not allow automatic payment of benefits for a grade of W or I. Incomplete grades will be reported to the VA as non-punitive. Students who drop courses may have to pay back money received for such courses.

The VA will allow payment only in cases of mitigating circumstances and students will be required to explain in writing to the VA the reason for their withdrawal from courses. There is a one-time exclusion for dropping up to six credit hours.

Before withdrawing from an academic course, the students must notify the campus VA Certifying Official in order to have their VA hold removed. The student is responsible for withdrawing from an academic course by following the standard College procedures. Students must also notify their VA representative. If students need to drop a college preparatory course, an educational planner/counselor’s approval must be obtained. Students needing further assistance may contact the Enrollment Services Office on their campus.

Repeating Courses

No student may retake a course for VA benefits in which a passing grade or a temporary grade of I has been awarded. The student is responsible for knowing which courses have been completed. The College will immediately notify the VA of any course duplications and appropriate changes will be made when a student has taken an unapproved course. Students may not retake successfully completed courses.

Program Requirements

VA regulations require that persons who have declared a degree plan take courses leading toward that objective. Any deviation from the approved program cannot be certified for VA benefits. Students should request a change of program before enrolling for courses outside the approved program. Electives not suggested in the catalog should be approved by the campus VA Certifying Official. Most veterans are exempt from college preparatory classes, however if veterans want to be certified for college preparatory course work, they must show a need by taking a placement exam.
Tutoring

All students using VA educational benefits may be eligible for tutorial assistance paid by the VA. Students needing extra tutoring should contact the College VSSC located on their campus for additional information.

VA Academic Standards of Progress

The Department of Veterans Affairs requires that a student make satisfactory academic progress to be eligible for VA educational benefits.

Also, VA students on academic probation and suspension will be reported to the Department of Veterans Affairs. A student who has been placed on academic suspension will not be eligible for educational benefit payments until approved by the VA.

All students receiving VA educational benefits are subject to the academic conditions under the Academic Probation and Suspension Table located in the catalog under Student Grades and Records. The exception to this table: For any student on continued probation, VA benefits will be suspended if the student’s institutional GPA does not meet or exceed a 2.0. Students may then submit to the VA a written statement of mitigating circumstances to request resumption of VA benefits.

Any student on continued probation may be certified for VA benefits for two terms. However, after two terms on continued probation, VA benefits will be suspended if the student’s GPA does not reach 2.0. Students may then submit to the VA a written statement of mitigating circumstances and request resumption of VA benefits. Note that certain program GPA requirements exceed VA GPA requirements.

Students Enrolling Under the Hazlewood Act

An act of the Texas Legislature known as the Hazlewood Exemption Act provides the following: All veterans who, at the time of entry into the U.S. Armed Forces, were Texas residents, designated Texas as home of record, or entered service in Texas, and who were honorably discharged or discharged under honorable conditions after serving on active duty (excluding training time) for more than 181 days, are exempt from paying tuition and certain fees.

The Hazlewood Act also allows veterans to use other federal aid in conjunction with Hazlewood benefits. An eligible person is limited to a maximum of 150 credit hours attempted. Students who are in default on an educational loan guaranteed by the state of Texas, are not eligible to receive Hazlewood benefits. Students eligible for Hazlewood benefits must meet the following academic requirements:

1. Grade Point Average (GPA) Component
   San Jacinto College uses the 4.0 grade point average system and numerical code:
   
   4.0 = A  3.0 = B  2.0 = C  1.0 = D  0.0 = F

   A student is expected to maintain a minimum cumulative GPA of 2.0 based upon the aggregate number of hours attempted at San Jacinto College.

2. Pass Rate Component
   A student is expected to pass a minimum of 75 percent of all hours attempted at San Jacinto College. Beginning with the Fall 2011 term, transfer hours will be included in the pass rate calculation.

To comply with the requirements of the State Auditor’s Department, during or before registration, veterans or qualifying dependents must present six documents for the files at San Jacinto College:

Veteran:

1. The member 4 copy of DD-214 (separation papers).
   DD214-member 1 is not a valid DD-214 for use of educational benefits.

2. Provide proof of eligibility or ineligibility for Chapter 33, from VA office in Muskogee, OK, if the veteran served after 09/11 and separation. In the event the veteran is eligible for chapter 33, the cost of enrollment for the term may not exceed the value of Hazlewood (COE is required). Veterans may request a copy of their benefits eligibility letter by submitting a request through the VA’s Ask a Question website at www.gibill.va.gov.

3. A completed formal application for Hazlewood Act benefits. Applications are available at the VSSC on your campus or you may also download the application from the Texas Veterans Commission website at http://www.tvc.texas.gov/Hazlewood-Act.aspx.


   Note: Veterans may use the Hazlewood Exemption in conjunction with other VA education benefits and Pell Grant, if eligible. However, compliance with the “default loan” clause will be verified by the school. Please contact your campus VSSC for more information.

Children and Spouses:

1. The member 4 copy of DD-214 (separation papers). DD214-member 1 is not a valid DD-214 for use of Educational Benefits.

2. A letter from the Department of Veterans Affairs Office stating the parent or spouse died as result of service-related injuries or illness, is missing in action, or became totally disabled for purposes of employability as a service-related injury or illness.
3. Provide proof of eligibility or ineligibility for Chapter 33, from VA office in Muskogee, OK, if the veteran served after 09/11. In the event the veteran is eligible for chapter 33, the cost of enrollment for the term may not exceed the value of Hazlewood (COE is required). Please request an education benefits letter by calling 1-888-442-4551.


Transferability of Benefits (Legacy):
Eligible veterans may assign unused hours to a child under certain conditions. The following documents are required.

1. The veteran’s member 4 copy of DD-214 (separation papers). DD214-member 1 is not a valid DD-214 for use of Educational Benefits.

2. Copies of birth certificate, marriage certificates, or tax returns may be requested.

3. Applications are available at the VSSC. Applications are also available at the Texas Veterans Commission website at http://www.tvc.texas.gov/Hazlewood-Act.aspx.

4. A transcript from all schools attended since Fall 1995, showing credit hours attempted under the Hazlewood Act.


Transfer Credit—United States Military
San Jacinto College may give undergraduate credit for demonstrated proficiency in areas related to college-level courses completed while in the United States military. The Defense Activity for Nontraditional Education Support (DANTES) and the Office of Education Credit and Credentials of the American Council on Education (ACE) will be the sources used to determine proficiency. In assigning credits of this nature, the recommendations of the American Council on Education (ACE) will be used as guidelines.

A maximum of 15 credit hours of course work from official military transcripts, and two credit hours of PHED activity courses may be earned and applied toward a degree or certificate in this nontraditional manner. Only the courses that apply to the student’s major and used for graduation will be evaluated and assigned credit. The credit will be evaluated as transfer work and will not appear on the San Jacinto College transcript. The courses will be assigned the grade of “CR” indicating credit. These grades will not calculate in the overall GPA of the student but the credit hours will count in the total hours for financial aid awards.

Any student wishing to earn credit for military experience must submit official transcripts. Students must have official transcripts mailed to the institution from the appropriate office depending on the student’s branch of service.

The Joint Services Transcript can supply military transcripts for all branches of service, except the Air Force. These can be sent electronically to San Jacinto College and in most cases are available within 7-10 business days. To request your transcripts log into https://jst.doded.mil/official.html.

CLEP
www.dantes.doded.mil/dantes_web/examinations/CLEP.htm

Community College of the Air Force (CAF) (accredited and all college-level credits will be accepted)

If the transcripts are complex, students will be asked to identify the courses they think should apply to their major program. The official transcripts will be evaluated and the student will be notified of the number of credits that will be accepted as transfer credit.
Services and Activities

College Libraries

Each San Jacinto College library provides a broad range of academic support services that include:

- Current print materials including books, magazines, and newspapers
- Electronic databases with access to more than 19,000 full-text journals
- Thousands of electronic books
- Instructional videos

Professional librarians are always available in person and online to show you how to use the library and to help you locate information. Email reference inquiries may be submitted through the libraries’ page on the San Jacinto College website.

Students can access the library catalog and research databases from home or work through the San Jacinto College website. In the library catalog, you can place holds on books, renew your books, and check your personal library records. You can also access library resources through Blackboard.

Textbooks, supplemental readings, and videos placed on reserve can be obtained at the reserve desk of the campus where the class is being taught. These items may be used inside the library. Copiers, copy cards, and scanners are also available at each library.

Most books are loaned for three weeks. You may renew your book(s) once, if no one else has placed a hold on the item(s).

The libraries have laptop and desktop computers that provide students with access to the Internet, Microsoft Office software, and other applications. Students who have their own laptops are welcome to use the wireless network available at each library. Assistive technology is available for persons with disabilities.

Students may request a TexShare card which provides access to materials from participating public and academic libraries across the state. Our interlibrary loan service may be used to borrow books or obtain articles not owned by any of the San Jacinto College libraries.

Note: Late fees for past due items vary from $.50 to $1 per day. Students are billed full replacement costs plus late fees for lost or damaged materials.

Computer Access

Students have access to computers via the Interactive Learning Centers (ILC) and computer labs located throughout the campuses. The labs are equipped with personal computers and printers. Students are assigned an account to access a local area network that provides tutorial software as well as software for creating assignments, reports, accounting spreadsheets, statistical analysis, and computer programs. The ILC offers access to the Internet, Microsoft Office, Blackboard, and other College supported applications with onsite lab support available. Lab hours are posted at the beginning of each semester.

Child Care

North and Central campuses operate a Child Development / Early Childhood Education Lab School, licensed by the Texas Department of Family and Protective Services and accredited by the National Association for the Education of Young Children. Children are enrolled in the Lab School on a first-come basis, as space is available, for one term or session at a time. Grants may be available for child care assistance.

Textbook Repurchase Policy

Your San Jacinto College bookstores, located on all three campuses, are your providers for all your required textbooks, course materials, and school supplies. With the largest selection of used books and digital titles (as available) the bookstores stock every book for every course offered at San Jacinto College. Textbooks (when applicable) can also be rented for an entire semester at a savings of MORE THAN HALF THE PRICE of a new textbook.

Textbooks purchased at the beginning of the term may be returned for 100 percent refund, subject to the following conditions.

1. A register receipt must accompany all returns.

2. Items must be in original condition. New books must be in new condition (no markings in book at all). Books with software and CDs, videos, etc., must be in original condition. No refund if seal or shrink-wrap is broken.

3. Contact the bookstore for specific refund periods.

4. Refunds will not be given on any textbook purchased after the term’s refund period ends.

Bookstores will buy back textbooks at the end of each term. Bookstore decisions about whether to buy back any textbook are determined by the need for that book in the next term. Cash register receipts are not required to sell books back to the bookstores, but a valid student ID is required. Contact the bookstore for specific buyback dates.

North Campus    281-459-7111
South Campus    281-922-3410
Central Campus  281-476-1898

Commuter Campus

San Jacinto College is a commuter college, so dormitories are not located on College campuses. A variety of apartments are located within close proximity to the College campuses.
SERVICES AND ACTIVITIES

Student Services
San Jacinto College provides a comprehensive network of support services to create a supportive, stimulating academic environment that extends beyond the classroom. The student services program helps students achieve their educational and career goals by providing knowledgeable counseling and opportunities for leadership, personal enrichment, and recreation.

Campus Activities
Our goal at the Office of Student Life is to promote success inside and out of the classroom by enhancing the student experience. College isn’t just about learning inside the classroom. We strive to create an environment where students feel connected to their alma mater by offering programs to open doors to student leadership, social opportunities, volunteering in the local community, and enhancing academic success.

San Jacinto College believes that students acquire many of their most lasting impressions in college in co-curricular and extracurricular activities. The College provides a variety of campus activities to meet the interests and needs of all students. These campus activities enrich the college experience through a wide variety of social, cultural, intellectual, and recreational programs that complement the students’ classroom experiences.

The Office of Student Life has information on more than 100 student organizations across the campuses, festivals, activities, game room hours, lecture series, community service projects, and leadership development programs. Student organizations are a major component of the student life and activities program. Belonging to a professional, social, cultural, or special interest group on campus allows a student to acquire new interests, develop leadership and management skills, and meet new people. Participating in extracurricular programs can make a difference between getting behind and getting ahead in college and in a career. Many employers see campus involvement as a key indicator of a student’s potential for success with his/her company. Therefore, students are encouraged to participate in campus activities for both personal and professional enrichment.

Recreational and Intramural Sports
The San Jacinto College campus rec department provides students opportunities to enjoy a variety of sports such as volleyball, basketball, indoor soccer, pool, table tennis, and more. All eligible students are welcome to participate in the program’s individual, dual, or team sports. Most activities are free for eligible students. For more information, contact the student life office.

Disability Services
The Disability Services office assists students with disabilities to provide reasonable accommodations. The Disability Services staff will assist students who may need accommodations such as extended testing, resource referral, adaptive equipment, coordination of interpreting services, and registration assistance.

Child care assistance is available through the Carl Perkins Grant on the South Campus for eligible students who are enrolled in certificate of technology and/or associate of applied science degree programs.

Inquiries about Disability Services may be addressed to disability.services@sjcd.edu or by visiting Educational Planning and Counseling.

Central Campus 281-476-1014
North Campus 281-459-2317
South Campus 281-922-3444

Career and Employment Services
The purpose of Career and Employment Services is to be the leader in continuously fostering partnerships with students, alumni, employers, faculty, staff, administrators, and the greater community. We support student success by providing students and alumni with the tools necessary to bridge education with employment while promoting lifelong career development.

San Jacinto College is committed to your complete success, and that means helping students take the next step, beyond the course work and into the working world. That’s where Career and Employment Services can help.

Career and Employment Services offers a variety of services to assist with career exploration, decision making, and job search. We provide career assessments for students who are unsure about a major. An online database is available to search for full-time, part-time, on-campus, and seasonal employment. Throughout the year, workshops on résumé writing and interviewing are offered, as well as career fairs, networking events, and employer panels.

Undergrads, alumni, continuing education students, and community members are invited to take advantage of our free services.

For more information or how to contact a campus career center, please visit www.sanjac.edu/career-center.
Official Communications

The College considers the following as official notifications: Communications to the entire student body properly delivered through San Jacinto College email, text message, voicemail, and/or posted on the official San Jacinto College website, Blackboard, campus bulletin boards, or published in the Catalog, Student Handbook, or the school newspaper.

At times, the College may need to request a student to report to an administrative or faculty office for a conference. This request may be in person, by letter, email, or by telephone. Students who fail to comply with such a request may be subject to disciplinary action.

Emergency Closings

In the event the College needs to be closed for any situation, such as inclement weather, students and employees should check the College website at www.sanjac.edu or call (888) 845-5288 for the most immediate and current information. The College will also engage SJC AlertMe, which sends a voicemail, email, and/or text message to each student/employee who opts in. Students are responsible for any charges from their phone service provider associated with receiving voice or text messages. Official communications with students is through their San Jacinto College email account, and any emergency notifications will always be sent to students’ San Jacinto College email addresses. The College will also contact local media but the most reliable, accurate and current information will also be found on the College website, via SJC AlertMe, or at the toll-free number listed above.

Student Email Account

Email service is provided to all San Jacinto College students. This account will be used by the College as the primary email account for student communications and is tied to Blackboard courses for communications with faculty and other students. An email address will automatically be generated for a student who has registered and paid for a class at the College. This email service is for student use only. Features of the service are available at www.sanjac.edu/email.

Educational Planning and Counseling

Educational Planning and Counseling provides comprehensive services to help students with educational planning, career and personal development, and short-term personal counseling.

The purpose of Educational Planning is to create a collaborative learning experience that empowers students to maximize their potential while completing their educational goals. This process involves a series of ongoing and intentional conversations between the student and an Educational Planner that establishes a pathway to student success and the realization of educational, career, and life goals.

Career Counseling promotes an opportunity for students to explore their personality, interests, and values, which are important factors in choosing a career. In addition, the college offers innovative web-based tools for career exploration. Professional counselors are available to help students evaluate the results of these web-based guidance systems.

Short-term personal counseling is available to assist students in dealing with personal issues such as transition to college, study skills, family issues, and referrals to social services in the community.

For more information, please visit www.sanjac.edu/educational-planning.

First Year Experience

The mission of First Year Experience (FYE) is to provide quality programming, support services, and resources to facilitate a seamless transition for first-year students. Through specifically-designed events and communication, FYE promotes student development, persistence, and academic success.

The First Year Experience office plans and coordinates mandatory campus and online New Student Orientation (NSO) before each fall, spring, and summer term. The purpose of NSO is to foster student success, establish social and academic connections, introduce college resources, and engage students in the San Jacinto College culture in a fun, supportive environment.

After being fully admitted, students are required to register for New Student Orientation through SOS at http://www.sanjac.edu/SOSlogin.

New Student Orientation sessions include an opportunity for incoming students to ask questions, tour the campus, and meet faculty, staff, and students. Limited space is available at each session.

The FYE office facilitates the FYE Calling Campaign. Student peers contact first-time-in-college students at strategic time periods during the semester to relay critical information to promote their success at the College.

First Year Experience events are sponsored each month to encourage new student participation in campus activities, support the academic mission of the College, and connect first-year students to their campus community. First-year students can find out about campus events and get useful tips and information through the FYE newsletter, sent via email each month.

For more information, please visit www.sanjac.edu/fye.
Responsibilities

Plagiarism

Documenting the use of others’ work is important because it recognizes the original author’s effort, establishes the student writer’s credibility, and supports the audience’s future research. Plagiarism is offering the work of another as one’s own, intentionally or unintentionally, without proper acknowledgment. Students who fail to give appropriate credit for ideas or material they take from another, whether a fellow student or a resource writer, are guilty of plagiarism (i.e., stealing the words or ideas of another). The College may contract with companies or organizations that provide plagiarism-detection services. Such companies may receive students’ work for the purpose of comparing the students’ work with a reference database. Students enrolling at San Jacinto College agree as a condition of their enrollment that their work may be submitted to such companies for the purpose of plagiarism detection and that the company may retain a copy of the work for plagiarism-detection purposes. Such companies will not copy, use, or distribute the students’ work.

Cheating, Plagiarism, and Collusion

The following institutional guidelines concerning cheating, plagiarism, and collusion are provided for the information of all students enrolled in any course offered by San Jacinto College. Gaining knowledge and practicing honesty go hand in hand. The importance of knowledge properly gained is reinforced by the grading system. The importance of honesty fully practiced is emphasized by rules against cheating, plagiarism, and collusion. Any act of cheating, plagiarism, or collusion in any degree subjects a student to the disciplinary procedures listed below.

Cheating

Students must be completely honest in all phases of their work. Cheating includes, but is not limited to, the following:

- dishonesty of any kind on examinations, assignments, or program requirements;
- unauthorized possession of examinations or unapproved notes or sources at any time, whether used or not;
- copying or obtaining information from another student during an examination or performance of a lab skill or competency;
- alteration or falsification of course or academic records; and
- unauthorized entry into or presence in any office.

Plagiarism

Documenting the use of others’ work is important because it recognizes the original author’s effort, establishes the student writer’s credibility, and supports the audience’s future research. Plagiarism is offering the work of another as one’s own, intentionally or unintentionally, without proper acknowledgment. Students who fail to give appropriate credit for ideas or material they take from another, whether a fellow student or a resource writer, are guilty of plagiarism (i.e., stealing the words or ideas of another).

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Collusion

Collusion is unauthorized collaboration in preparing any work offered for credit. Collusion includes, but is not limited to, knowingly using, buying, selling, stealing, sharing, transporting, or soliciting, in whole or in part, any information or materials to be submitted as a student’s own work. Collusion also includes impersonating another student for the purpose of taking a course or exam. A student who provides access to the materials is also guilty of collusion and subject to the same penalties. Therefore, students should take reasonable precautions to protect their work from being compromised.

Responding to Violations

Faculty have the responsibility to initiate disciplinary action in response to violations of the rules regarding academic honesty. A faculty member is responsible for collecting any evidence of cheating at the time it occurs. A student may not withdraw from the course during the investigation of an incident of academic dishonesty or when a course grade of F has been imposed. A record will be kept of any imposed penalty or disciplinary action.

Penalties

If, in the judgment of the instructor, cheating, plagiarism, or collusion has occurred, he or she may assess an appropriate penalty with a recorded reprimand:

- recommendation for suspension from the College or expulsion from a program, which is submitted to the provost; the provost’s decision is final.
- failure of the course; the student may appeal the grade through the Final Grade Appeal process.
- failure of the assignment by the instructor; the instructor’s decision is final.
- reduced grade on the assignment by the instructor; the instructor’s decision is final.
- a reasonable penalty assessed by the instructor; the instructor’s decision is final.

The instructor will notify the student of his or her decision concerning the student’s grade and whether or not further disciplinary action is recommended before filing the report as indicated below. Faculty should also communicate with their department chairs/program directors and deans regarding any violation of the college honesty code. Should the instructor recommend suspension or expulsion of the student, the provost has the responsibility and authority to determine whether the student will be suspended or expelled.

Reporting Cheating, Plagiarism, and Collusion

The instructor will prepare an Academic Dishonesty Incident Report for the provost, the dean, department chair and/or program director. The report indicates the nature of the incident and the resulting penalty. The student has the privilege of making a written declaration on his or her own behalf to the instructor. Copies of this declaration, which are not construed as an appeal, but for information only, will be filed with the provost.
STUDENT RIGHTS AND RESPONSIBILITIES

Change of Name or Address
The College expects students who change their names, residences, email address or mailing addresses to notify the Enrollment Services Office immediately. The College considers any communication sent to the name and address given by a student on College records to be properly delivered.

Unattended Children on Campus
San Jacinto College occasionally offers classes and activities for children. At all other times children may not remain unattended on campus, nor may children attend classes with their parents.

Retention of Student Work
The College may indefinitely retain all work submitted to a professor in a course, including but not limited to tests, term papers, reports and projects.

Student Intellectual Property
Students shall retain their intellectual property rights on projects produced as a result of their individual initiative with incidental use of College facilities and resources. If the student is working on a project initiated and funded by San Jacinto College, ownership resides with the College.

Student Absences for Religious Holy Days
In accordance with Senate Bill 738, a student who is absent from classes to observe a religious holy day will be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence, if (1) not later than the 15th day after the first day of the term, the student notifies the professor of each class that the student will be absent for a religious holy day and (2) the student personally delivers the notification in writing to the professor of each class (with receipt of the notification acknowledged and dated by the professor) or sends a notice by certified mail (with return receipt requested) to the professor of each class.

A student who is excused under Senate Bill 738 will not be penalized for the absence, but the professor will respond appropriately if the student fails to complete satisfactorily the assignment or examination.

Student Right-to-Know
The College publishes a statement of Student Rights and Responsibilities in the Student Handbook. The College makes available statistics regarding completion and graduation rates of full-time certificate and degree-seeking students. The reports are available at each campus Provost’s office. The campus police department reports campus crime statistics.

Equity and Accommodation
San Jacinto College is dedicated to providing the least restrictive learning environment for all students. The College promotes equity in academic access through reasonable accommodations as required by the Vocational Rehabilitation Act of 1973, Title V, Section 504 and the Americans with Disabilities Act of 1990 (ADA), which allow students with disabilities access to all post-secondary educational programs and activities.

Family Education Rights and Privacy Act (FERPA)
In all instances, legal directives and requirements of the Family Educational Rights and Privacy Act (FERPA) of 1974 and the Texas Public Information Act pertaining to student records shall be followed.

The College gives access to records only to those persons and agencies that the Privacy Act specifies and the College will keep a record of all persons who receive access.

The College will release only directory information without a student’s consent including high school dual credit/early admission students. Directory information includes the student’s (1) name, (2) address, (3) email address (4) telephone listing, (5) age, (6) degrees earned and dates, (7) major program of study, (8) classification, (9) dates and terms of attendance, (10) number of term hours in progress, (11) previous educational institutions attended, (12) eligibility for, and honors and awards received, with dates that the honor or award was received, (13) eligibility for and participation in officially recognized activities and sports, (14) weight and height of members of athletic teams and sports statistics, and (15) enrollment status (full-time or part-time).

A student may ask that this information be withheld from the public in a written request to the Enrollment Services Office. The student may make this request at any time. Once a student has requested that directory information be withheld, no information will be released except with written approval from the student.

School officials (faculty, administrators and staff, including part-time and student workers) may have access to student records when a legitimate educational interest exists. Students wanting their records should give that person a signed release specifying what they need and a photocopy of the student’s picture ID.

The College may disclose education records without a student’s prior written consent under the FERPA exception for 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 and health staff); a person or company with whom the College has contracted as its agent to provide a service (such as an attorney, auditor, health care professional or diagnostian, computer services professional,
STUDENT RIGHTS AND RESPONSIBILITIES

or insurer); a person serving on the Board of Trustees; a student serving on an official committee, such as a disciplinary or grievance committee; or a student assisting another school official in performing his or her tasks. The term “school official” also includes representatives of hospitals and clinical sites with whom the College has a contractual relationship that permits students to receive clinical training as part of their educational programs.

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 responsibilities for the College.

Discrimination and Harassment

It is the policy of San Jacinto College to provide an educational, employment, and business environment free of discrimination based on race, creed, color, national origin, citizenship status, age, disability, pregnancy, religion, gender, sexual orientation, gender expression or identity, genetic information, marital status, or veteran status. Trustees, administrators, faculty, staff, and other agents of the College will not engage in conduct constituting unlawful harassment or discrimination.

The College strives to maintain a learning environment free of harassment. The College will promptly investigate all allegations of harassment and take appropriate disciplinary action against individuals who engage in unlawful behavior. Disciplinary action may include dismissal of employees or expulsion of students.

For information about reporting a discrimination or harassment complaint, please refer to the Student Handbook.

Grievance Procedure for General Complaints

A general complaint is a College-related problem or condition that a student believes to be unfair, inequitable, or a hindrance to the educational process or the conduct of on-campus business. The general complaint procedure is the process by which a student may communicate a general complaint.

The general complaint procedure is designed to provide the student with the opportunity to express his or her views on College-related conditions that impede his or her education and to seek relief from those conditions. It is not intended, nor may it be used, to supplant other grievance/complaint/appeals procedures designed to address certain matters for which special procedures are published. Specifically excluded from the general complaint procedure are grievances related to: sexual harassment; discrimination or harassment on the basis of race, color, religion, national origin, gender, disability, pregnancy, marital status, sexual orientation, veterans status, or age; grade disagreements or appeals; traffic ticket appeals; and grievances or appeals filed under the procedure for violations of student life conduct policies.

Students who wish to file a general complaint should refer to the Student Handbook.

How to Request Public Information

While there is no strict form required to request public information, there are certain guidelines that must be met.

1. Your request must be in writing. Only written requests trigger the College’s obligation under the Public Information Act.
2. Your request should be for documents or other information that is already in existence. The College is not required to answer questions, perform legal research, or comply with a continuing request to supply future information. The College is not required to create a document, report, or other information not in existence under the Public Information Act.
3. Requests should be addressed to the College Public Information Officer. Requests made by facsimile or electronic mail must be addressed to the Public Information Officer in order to trigger an obligation under the Public Information Act.
Student Grades and Records

Classification
A freshman is a student who has accumulated fewer than 30 term hours of college credit. A sophomore is a student who has accumulated 30 or more hours of college credit.

Grade Range
Percentage grades, when used, are converted to these letter grades:

<table>
<thead>
<tr>
<th>Range</th>
<th>Grade</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>90–100</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>80–89</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>70–79</td>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>60–69</td>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>Below 60</td>
<td>F, FX</td>
<td>0</td>
</tr>
</tbody>
</table>

Grade Point Average (GPA)
Earned grade points are calculated by multiplying the number of credit hours of the course by the grade point value of the grade received in the course. For example, in a three-term hour course, an A produces twelve grade points; a B produces nine grade points; a C, six grade points; a D, three grade points; and an F or FX, zero grade points.

The grade point average is computed by dividing the total grade points earned by the total number of term hours completed in unduplicated courses with grades of A, B, C, D, F or FX. Grade point average computations include only courses completed at San Jacinto College. For repeated courses only the highest grade is used in computing the cumulative grade point average. Grades of I, N, W and WL are neutral and are not included in any grade point average.

Overall Institution Grade Point Average
The College has established 2.0 as the minimum grade point average requirement for a student to remain in good academic standing. (See the Academic Status section.) The transcript Grade Point Average (GPA) is calculated on the basis of all credit posted to the San Jacinto College transcript, including credit hours in college preparatory courses. If a student repeats a course, which may not be repeated for credit, only the highest grade earned in the course is used in determining the GPA. The graduation GPA is calculated using only college-level courses. Students will be denied graduation if the transcript GPA is less than 2.0.

Scholarly Achievement

Dean’s Honor List
At the end of each long term, a Dean’s Honor List is compiled. In order to be listed, a student must have earned a grade point average of at least 3.5 as a full-time student (12 or more hours completed during the term). The Dean’s Honor List is recorded on the official transcript each term the student qualifies.

Phi Theta Kappa (PTK)
Another recognition is Phi Theta Kappa (PTK). To be eligible for membership into Phi Theta Kappa, a student must have completed at least 12 hours that may be applied to an associate degree, have a 3.5 grade point average, receive an invitation for membership from the chapter at San Jacinto College, and must adhere to the moral standards of the society.

National Society of Collegiate Scholars (NSCS)
The National Society of Collegiate Scholars (NSCS) is also available to students. To be eligible for membership, a student must have completed 15 or more academic college-level hours (excluding technical and college preparatory) with a 3.6 grade point average and, receive an invitation for membership from NSCS.

National Technical Honor Society (NTHS)
Students in technical programs have an opportunity to join the National Technical Honor Society (NTHS). To be eligible for membership, a student must have a 3.5 grade point average on all technical courses, a recommendation from an instructor, and have completed 3-5 hours of community service.

Honors Program
The honors program is another opportunity to enrich a student’s college experience. Students with a 3.25+ cumulative GPA on at least 12 hours of college credit courses, or first-time-in-college students with one of the following are eligible for the Honors Program: a 3.25+ GPA; score of 4 or 5 on an AP exam; top 20% of high school class; 1100 SAT (reading + math); or 26 ACT. Documentation, such as official transcripts, must be provided with the Honors Program application.

Lambda Epsilon Chi (LEX)
Students in San Jacinto College paralegal program have the opportunity to join Lambda Epsilon Chi (LEX). LEX requires members to have achieved “superior academic performance.” To achieve this status, our chapter requires:

1. Completion of at least two-thirds of the program curriculum, specifically:
   a. Ten Legal Specialty (LGLA) courses (30 credits)
   b. Three General Education Courses (9 credits)

2. A minimum 3.5 grade point average within the two-thirds requirement.

Final Examinations

The provosts establish the times and dates of final examinations. Professors must follow those published schedules and students may not take final examinations earlier than the times designated in the published schedules.

Grading System

Term grades for all students are entered electronically by the faculty at the end of the term. Once the grades have all been entered, GPAs and academic standings are recalculated and posted to the academic record as quickly as possible. Students can view or print their grades online through the Secure Online System (SOS).

The College uses these grades to evaluate students' academic performance.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points Per Credit Hour Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent, superior achievement</td>
</tr>
<tr>
<td>B</td>
<td>Good, above average achievement</td>
</tr>
<tr>
<td>C</td>
<td>Average, acceptable achievement</td>
</tr>
<tr>
<td>D</td>
<td>Passing, marginal achievement</td>
</tr>
<tr>
<td>F</td>
<td>Failure, unsatisfactory achievement</td>
</tr>
<tr>
<td>FX</td>
<td>Failure, excessive absences</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
</tr>
<tr>
<td>WL</td>
<td>Withdrawal within Limit</td>
</tr>
<tr>
<td>NG</td>
<td>No Grade Reported</td>
</tr>
<tr>
<td>AUDIT</td>
<td>Audited Course</td>
</tr>
</tbody>
</table>

Incomplete (I)

Incomplete (I) is a temporary grade that indicates that a student has satisfactorily completed the requirements of a course with the exception of a final examination or other work delayed by illness, emergency, or authorized absence. The student is responsible for making arrangements to complete the work within the time limit set by the professor. This time limit, however, may not extend beyond the conclusion of the next Fall or Spring term. If the student has not submitted course requirements set by the instructor and had a final grade posted by the end of the next long term, the record system will automatically convert the Incomplete to an F.

No Grade (NG)

No Grade (NG) is a temporary grade assignment pending receipt of a final grade from the professor. Professors may not assign grades of NG.

Withdrawal (W)

A grade of W is awarded for course withdrawals to students who were new first-time-in-college students prior to Fall 2007 and are NOT affected by the six-drop limit or who received an exemption from the six-drop rule for a particular class. A grade of W is awarded for course withdrawals to students who were new first-time-in-college students in Fall 2007 or thereafter and are affected by the six-drop limit. The grade of W is the indicator that this withdrawal is counted in the six drop limit. An affected student is limited to six grades the equivalent of W from all Texas public colleges and universities combined.

Failure, Excessive Absences (FX)

A faculty member may award a grade of FX at the end of the term to any student. This grade means that the student registered and paid for the course and failed the course because the student missed an excessive number of classes and did not exercise the right to drop the course or was not eligible to drop the course because of TSI or Six-Drop rule regulations. For each grade of FX submitted, the last date the student attended the course must be reported. Grades of FX will not be posted without this date.

The grade of FX carries the same academic impact as the grade of F in that the credit hours are included in the calculation of the grade point average and the grade awards zero (0) grade points. The grade of FX indicates a completed course just as a grade of F indicates a completed course. The grade of FX is not a drop or withdrawal. The process to appeal the grade of FX is the same as an appeal for any other faculty awarded grade.

Procedure for Student to Appeal a Final Grade

Grade determination and awarding of a final grade in a course is clearly the responsibility of the instructor. Final grade reports should be available to the student within a reasonable time following the end of the course.

When a student becomes aware of a final grade that is believed to be incorrect, the student may appeal the final grade received in the course. The student shall initiate the appeal process as soon as possible following the receipt of the grade. The appeal process shall be filed no later than 30 calendar days after the end of that semester, and must be resolved within 120 calendar days following the initiation of the appeal.

Students may not use this procedure to challenge the substance or content of an exam, test item, or assignment.

At no step in the process are the instructor’s questions or individual test items to be scrutinized. Only course syllabus (e.g., grading system), and letter or numerical grades as recorded in the instructor’s grade book will be examined.

The procedures for appealing a grade shall be as follows:

1. **Student Meeting with Instructor**
   
The student and instructor shall discuss in private consultation the grade that the student believes is incorrect. At this meeting, only the grades on tests, projects, reports, etc., and the grading system
list of the syllabus will be discussed and recalculated as necessary. Whenever possible, the matter should be resolved at this meeting. If
the instructor cannot resolve the problem immediately, the student
will be notified of the availability of a copy of the grade appeal
procedures in the office of the appropriate dean or the Provost.
If, upon receipt of the instructor’s written decision, the student is
dissatisfied with the decision, the student may request a meeting
with the department chair to appeal the decision of the instructor.
( NOTE: In the event there is no department chair, the student may
request a meeting with the dean who will conduct the meeting in
accordance with steps No. 1 and No. 2 of this procedure.) The
student must make the appeal within five (5) working days after
notification by the instructor.

2. Student Meeting with Department Chair/ Program Director
The department chair must arrange a meeting no more than five
(5) working days after receiving a request from the student. This
meeting will include the student, the instructor, and the department
chair. Providing sufficient evidence of discrepancies or errors in
the grade will be the responsibility of the student. If insufficient
evidence is offered, the appeal is denied. The student will be given an
opportunity to present his/her case. The instructor will be given a
chance for rebuttal.

On hearing the evidence from both sides, the department chair will
take one of the following actions:

If, in the opinion of the department chair, the student failed to
provide sufficient evidence of discrepancies or errors in the grades,
the student will be notified in writing that the appeal is denied. The
department chair will notify the student of the right to appeal
the decision and about the procedures for appeal. At the same time,
the department chair will notify the instructor in writing of this
decision. The notification must be given within five (5) working days
of the hearing.

If, in the opinion of the department chair, the student did provide
sufficient evidence of discrepancies or errors in the grades, the
instructor will be notified within five (5) working days of the
meeting. At the same time, the department chair will notify the
student in writing of this decision.

The instructor will, in turn, inform the department chair in writing
within five (5) working days whether he/she will change the grade.
If the instructor changes the grade, the instructor notifies the
student in writing, and the matter is closed.

If the instructor chooses not to change the grade, the department
chair will be notified of the decision in writing within five (5)
working days after having received the recommendation from
the department chair. Within five (5) working days after being
informed of the instructor’s decision to deny the grade change,
the department chair will notify the student that the appeal is
denied and inform the student of further rights to appeal and the
procedure for doing so.

All time limits stated are in working days. All time limits may be
extended by mutual consent.

3. Student Meeting with Dean
Within five (5) working days after receiving notification from the
department chair that the appeal has been denied, a student may
request a meeting with the dean who will take either action A or
action B as described above.

Note: In the event there is no dean or in the event that the dean
conducted the initial meeting, the student will proceed to step 4.

4. Student Meeting with Academic Appeals Committee
Within five (5) working days after receiving notification from the
dean that the appeal has been denied, a student appealing a grade in a
course may request a hearing before an Academic Appeals Committee.
This request will be in writing to the Provost. The committee will
consist of one (1) full-time instructor to be named by the student,
one (1) full-time instructor to be named by the instructor and one
(1) full-time instructor to be named by the Provost. The Provost
will request that the student and instructor submit the name of
their nominees within five (5) working days after notification of all
parties involved. Upon receiving the names of those nominees and
appointing a third instructor to the committee, the Provost will set
the time, date and place of the closed hearing and notify all parties.
This will be done within five (5) working days after having received
the names of both nominees. A student may present written evidence
relevant to the grade appeal and may be advised at the hearing by
one or more persons of his/her own choice. The student may have a
maximum of two (2) persons in the room at a time. The Academic
Appeals Committee may request information from the instructor and/or
persons familiar with the case.

Graduate Guarantee Program
San Jacinto College is so confident of the quality of its instruction
that, subject to the special conditions listed below, the College
makes these guarantees:

- Academic students can transfer their academic credit courses to
  Texas public colleges and universities.
- Technical students will acquire job skills for entry-level
  employment in their fields.

Transfer Credit
Subject to the conditions specified below, San Jacinto College guar-
antees students the transfer of credit to those publicly supported
Texas colleges and universities that participate in the College’s
Guarantee of Transfer Credit Program when course work at San
Jacinto College is completed in accordance with an approved and
properly executed transfer plan.

1. Transferability means the acceptance of credit toward a specific
   major and degree.
2. The receiving college or university must identify courses as transferable in accordance with transfer plans dated 1992–1993 or later.

3. Limitations of the total number of credits accepted in transfer, grades required, relevant grade point average and duration of transferability apply as stated in the catalog of the receiving institution or in an agreement concerning the transfer of courses between San Jacinto College and the participating receiving institution.

4. The guarantee applies only to courses taken at San Jacinto College and listed on approved transfer plans. San Jacinto College will not be responsible for courses not applicable to a major due to a change of major by the student.

5. Students may be required to take prerequisite courses that may not apply to degrees in certain majors. Such courses are not eligible for this guarantee.

6. To be eligible for the guarantee, the student must file with the office of enrollment services on their campus an agreement to follow a written transfer plan. The plan must include:
   a. The name of the institution to which the student plans to transfer
   b. The associate degree, the bachelor’s degree and the major the student plans to pursue
   c. The date the plan was filed
   d. The date shown on the transfer plan

   If a student meets the above conditions, but does not receive transfer credit for one or more courses from the receiving institution, the student must notify in writing the provost at his/her campus within 14 calendar days of the notice of transfer credit denial. The provost will initiate the Transfer Dispute Resolution process established by the Texas Higher Education Coordinating Board. If this process does not resolve the course denial, San Jacinto College will develop a plan whereby the student may take, tuition free, a maximum of nine credit hours of acceptable alternative courses within one year from the date the plan was executed. Although tuition for these courses is free, the student must pay for books, fees or other course-related expenses.

Entry-Level Job Skills
Subject to the special conditions listed below, San Jacinto College guarantees that students earning an associate of applied science degree or certificate of technology will have the job skills necessary for entry-level employment in the technical field for which they have been trained. If the employer provides sufficient evidence that the student lacks these skills after completing one of these programs, the College will provide additional skill training, tuition free. These special conditions apply to the guarantee:

1. The student must earn the associate of applied science degree or the certificate of technology in a technical program listed in the San Jacinto College Catalog as of the 1992-1993 academic year or later.

2. The student must complete the degree program within four years or the certificate program within three years. All technical course work must be completed at San Jacinto College within the specified time period.

3. The student must be employed full time within 12 months after graduation in an occupation directly related to the specific program completed at San Jacinto College as certified by the College.

4. The student’s employer must certify in writing that the student lacks the entry-level job skills identified as program-exit competencies by San Jacinto College for the program which he/she completed. The employer must specify the areas of deficiency within 90 days of initial employment.

5. After the student contacts in writing the San Jacinto College campus where he/she received training, the student and the College will develop together a written educational plan for retraining.

6. Retraining will be limited to nine credit hours related to the identified skill deficiency and to those classes regularly scheduled during the period covered by the retraining plan.

7. The students must complete all retraining within a calendar year from the time the educational plan is agreed upon.

8. Although tuition for this retraining is free, the student must pay for books, insurance, uniforms, fees, and other course-related expenses.

9. The guarantee does not imply that San Jacinto College graduates will pass any licensing or qualifying examination for a particular career.

10. This guarantee does not apply to competencies taught in courses in which the student earned a grade of less than C, nor does it apply to courses which have been substituted for required courses specified in the degree or certificate program.

Transfer Credit
Common Course Credit Numbering System
San Jacinto College is a member of the Texas Common Course Numbering System. Institutions of higher education in Texas teach similar courses and these courses have a common number. This common number facilitates transferring these courses among the participating institutions.

The Texas Common Course Numbering System Manual identifies general academic courses that transfer. It does not include college preparatory and technical courses. The common number system makes it easier for students to plan future studies.
STUDENT GRADES AND RECORDS

For example, English 1301, Composition I at San Jacinto College, has the common course number ENGL 1301. Some institutions adopt the common course number as their number. Other institutions may not change their course numbers to common course numbers, but may display common course numbers alongside their existing course numbers. Three possible ways of presenting ENGL 1301 are:

<table>
<thead>
<tr>
<th>San Jacinto Course Number</th>
<th>Other Institutions Course Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301 Composition I</td>
<td>ENGL 1301 Composition I</td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
<td>ENG 101 (ENGL 1301) Freshman Composition I</td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
<td>LANG 1311 Rhetoric and Composition (ENGL 1301)</td>
</tr>
</tbody>
</table>

Once students understand this system, they can easily match the courses they have taken at San Jacinto College to the corresponding courses at other member institutions. However, since not all courses are common courses, students should obtain a list of courses recognized by the school to which they plan to transfer. Many courses not recognized as common at a member institution may still have equivalents at that institution that will transfer and fulfill degree requirements.

Students can get more information about the Texas Common Course Numbering System at San Jacinto College from the Enrollment Services Office on any campus.

Free Transferability

Lower-division courses included in the Academic Course Guide Manual and specified in the definition of lower-division course credit shall be freely transferable to and accepted as comparable degree credit by any public institution of higher education where the equivalent course is available for fulfilling baccalaureate degree requirements. However, each Texas institution of higher education may have limitations that invalidate courses after a specific length of time. Specifically excluded are courses designated as vocational, ESL/ESOL, technical, and college preparatory courses listed as basic skills.

Transfer of Credit to San Jacinto College

San Jacinto College follows these policies for students who wish to transfer credit for courses taken at other colleges and universities:

1. College-level course work: All grades received on college-level course work will be transferred into the College. Courses completed with grades of A, B, C and D or P will be eligible for use toward graduation if consistent with program requirements. Transfer grades will not be included in the San Jacinto College GPA calculation.

2. College preparatory course work: Grades of A, B and C in college preparatory course work will be used at San Jacinto College for placement in college preparatory courses and skill levels decisions only. No college preparatory course will be eligible for use toward graduation. No college preparatory transfer grades will be included in the San Jacinto College GPA calculation.

3. Financial aid: All grades on all prior courses attempted, both college-level and college preparatory, will be included in the total hours attempted calculations for financial aid purposes.

4. The institution from which the student is attempting to transfer credit must be accredited through one of the following associations:

<table>
<thead>
<tr>
<th>Accrediting Agency</th>
<th>Commission Specified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle States Association of Colleges and Schools</td>
<td>Commission on Higher Education</td>
</tr>
<tr>
<td>New England Association of Schools and Colleges</td>
<td>Commission on Institutions of Higher Education</td>
</tr>
<tr>
<td>North Central Association of Colleges and Schools</td>
<td>Commission on Institutions of Higher Education</td>
</tr>
<tr>
<td>Northwest Association of Colleges and Schools</td>
<td>Commission on Colleges</td>
</tr>
<tr>
<td>Southern Association of Colleges and Schools</td>
<td>Commission on Colleges</td>
</tr>
<tr>
<td>Western Association of Schools and Colleges</td>
<td>Accreditation Commission for Senior Colleges and Universities</td>
</tr>
<tr>
<td>Western Association of Schools and Colleges</td>
<td>Accrediting Commission for Community and Junior Colleges</td>
</tr>
</tbody>
</table>

Students who have completed course work from non-accredited institutions may be eligible to receive credit by examination.

Upon request by the student, transfer course work will be evaluated to determine if course work completed at other institutions is equivalent to courses offered at San Jacinto College.

An approved firm or organization who specializing in evaluating international education credentials must evaluate course work completed at colleges and universities outside the United States before San Jacinto College will consider that course work for transfer credit or for admission to special programs. The firm or organization must be on the San Jacinto College approved list. Documents must be either originals or certified copies and may have to be translated into English. The office of enrollment services and the international student counselor offer help in locating document translation and evaluation organizations recognized by San Jacinto College. For a complete list of approved companies, go to Approved Evaluation Services.

www.sanjac.edu
Transfer of Credit from San Jacinto College

The receiving institution decides whether to accept San Jacinto College courses in transfer and to apply those courses to individual degree plans. Students planning to transfer San Jacinto College course work to another college or university should always consult the college or university catalog and proper officials of that institution to determine the best courses to take for transfer. Some universities or programs do not accept grades of D in transfer.

Transfer Disputes Resolution

The Texas Higher Education Coordinating Board, under the requirements of Section 61.078 of the Education Code, has established procedures to resolve disputes between public institutions of higher education involving the transfer of credit from lower-division courses (courses offered in the first two years of college study).

Resolution of Transfer Disputes for Lower-Division Courses

1. Each public college and university must accept in transfer into a baccalaureate degree the number of lower-division credit hours in a major which are allowed for their non-transfer students in that major; however,

2. No institution must accept for transfer more credit hours in a major than the number set out in the applicable Coordinating Board approved Transfer Curriculum for that major.

3. For any major that has no Coordinating Board approved transfer curriculum, no institution must accept in transfer more lower-division course credit in the major applicable to a baccalaureate degree than the institution allows its non-transfer students in that major.

4. A university may deny the transfer of credit in courses with a grade of D as applicable to the student’s field of study courses, core curriculum courses or major if it denies credit in those same courses with a grade of D to its own students.

No university must accept in transfer or toward a degree more than sixty-six (66) credit hours of academic credits earned by a student in a community college. Universities, however, may choose to accept additional credit hours.

Public institutions of higher education shall follow these procedures to resolve credit transfer disputes involving lower-division courses:

1. If an institution of higher education does not accept course credit earned by a student at another institution of higher education, the receiving institution shall give written notice to the student and to the sending institution that transfer of the course credit is denied. A receiving institution shall also provide written notice of the reasons for denying credit for a particular course or set of courses at the request of the sending institution.

2. A student who receives notice, as specified above, may dispute the denial of credit by contacting a designated official at either the sending or receiving institution.

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

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

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

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

If a receiving institution has cause to believe that a course being presented by a student for transfer from another school is not of an acceptable level of quality, it should first contact the sending institution and attempt to resolve the problem.

In the event that the two institutions are unable to come to a satisfactory resolution, the receiving institution may notify the Commissioner of Higher Education, who may investigate the course. If its quality is found to be unacceptable, the Board may discontinue funding for the course.

Tech Prep and Articulated Credit from High School

High School articulation is an agreement between San Jacinto Community College District and an ISD to award college credit toward workforce courses in a certificate or an Associate of Applied Science (AAS) degree. At the request of school districts, agreements are developed when Advanced Technical Credit (ATC)-qualified high school instructors and course curriculum matches that of SJCD credit workforce courses. Agreements are honored and students may apply for course credits under the condition that students meet all eligibility requirements. Articulated credit is awarded for credit workforce (WECM) courses only.

The student’s official high school transcript is the official document college personnel review to determine student eligibility for credit.

Texas Education Agency (TEA) and ATC require independent school districts to include the course type code “A” to indicate the student completed an articulated course. SJCD does not award credit without the “A.”
Students must meet specific eligibility criteria in addition to general CPL criteria aforementioned:

- High school course marked with an “A” in the course type column on the high school transcript
- Students must enroll at SJCD within 15 months of their high school graduation date and petition for credit within 24 months of their high school graduation date
- Students must complete the high school course(s) with a grade of 80 or better
- Students must complete the high school course or course sequence during their 11th or 12th grade in high school
- The course(s) sought must be a part of or related to the student’s college technical certificate or degree plan, including approved electives
- Student must transcript at least 3 semester credit hours of college credit courses prior to awarding the articulated credit

Credit by Examination

Each college and university has its own policy for credit earned by examination, and any such credit allowed by one institution may not necessarily be accepted at another.

A student must have earned at least three credit hours of course work at San Jacinto College before the College will post credit for College Level Evaluation Program (CLEP), Advanced Placement (AP), International Baccalaureate (IB), or internal examinations to the student’s transcript. Credit for CLEP, AP, IB, internal examinations or a combination thereof may not exceed 30 credit hours.

A student who has previously received a grade (A, B, C, D, F, FX or I) in a course may not receive CLEP, AP, IB or internal examination credit for the same course.

Grades and credit hours are assigned to credit earned by internal examinations; a minimum grade of C is required to earn credit. Term hours only are assigned to credit earned by CLEP, AP, and IB examinations. Residence credit is not given for CLEP, AP, IB or internal examinations and they are not included in GPA calculations.

College Level Examination Program (CLEP)

San Jacinto College awards college credit for certain College Level Examination Program (CLEP) tests. Students should submit scores from completed tests to the Enrollment Services Office for evaluation and posting of credit. Students taking one of the following CLEP exams and scoring 50 or better will be awarded the credit indicated in the chart below. For language exams, students must score 63 or better in order to receive credit for 2311/2312 courses.

San Jacinto Community College Central Campus and San Jacinto College South Campus have been designated as testing centers for CLEP examinations. Complete information about the CLEP program and credit by examination policies for San Jacinto College is available from the testing centers on both campuses.

<table>
<thead>
<tr>
<th>TEST</th>
<th>COURSE</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Composition</td>
<td>ENGL 1301</td>
<td>3</td>
</tr>
<tr>
<td>American Literature</td>
<td>ENGL 2327 &amp; 2328</td>
<td>6</td>
</tr>
<tr>
<td>English Literature</td>
<td>ENGL 2322 &amp; 2323</td>
<td>6</td>
</tr>
<tr>
<td>College Algebra</td>
<td>MATH 1314</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM 1411</td>
<td>4</td>
</tr>
<tr>
<td>Calculus</td>
<td>MATH 2413</td>
<td>4</td>
</tr>
<tr>
<td>French</td>
<td>FREN 2311/2312</td>
<td>6</td>
</tr>
<tr>
<td>German</td>
<td>GERM 2311/2312</td>
<td>6</td>
</tr>
<tr>
<td>Spanish</td>
<td>SPAN 2311/2312</td>
<td>6</td>
</tr>
<tr>
<td>Spanish</td>
<td>SPAN 1411/1412</td>
<td>8</td>
</tr>
<tr>
<td>French</td>
<td>FREN 1411/1412</td>
<td>8</td>
</tr>
<tr>
<td>German</td>
<td>GERM 1411/1412</td>
<td>8</td>
</tr>
<tr>
<td>American Government</td>
<td>GOVT 2305</td>
<td>3</td>
</tr>
<tr>
<td>History of the US I: Early Colonization to 1877</td>
<td>HIST 1301</td>
<td>3</td>
</tr>
<tr>
<td>History of the US II: 1865 to Present</td>
<td>HIST 1302</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>ECON 2301</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>ECON 2302</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Psychology</td>
<td>PSYC 2301</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>SOCI 1301</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization I: Ancient Near East to 1648</td>
<td>HIST 2311</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization II: 1648 to Present</td>
<td>HIST 2312</td>
<td>3</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>ACCT 2301</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Business Law</td>
<td>BUSI 2301</td>
<td>3</td>
</tr>
</tbody>
</table>
**Advanced Placement Program (AP)**

San Jacinto College awards college credit for certain Advanced Placement (AP) program tests. Students should submit official scores from completed tests to the Enrollment Services Office, who evaluates the scores and authorizes the posting of credit.

<table>
<thead>
<tr>
<th>AP EXAM</th>
<th>MINIMUM SCORE</th>
<th>HOURS OF CREDIT</th>
<th>COURSE CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3</td>
<td>3</td>
<td>ARTS 1303</td>
</tr>
<tr>
<td>Studio Art (Drawing or General)</td>
<td>3</td>
<td>3</td>
<td>ARTS 1316</td>
</tr>
<tr>
<td>Studio Art (2D Design)</td>
<td>3</td>
<td>3</td>
<td>ARTS 1311</td>
</tr>
<tr>
<td>Studio Art (3D Design)</td>
<td>3</td>
<td>3</td>
<td>ARTS 1312</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>4</td>
<td>BIOL 1306/1106</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>8</td>
<td>BIOL 1306/1106, and 1307/1107</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>4</td>
<td>CHEM 1311/1111</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>8</td>
<td>CHEM 1311/1111 and 1312/1112</td>
</tr>
<tr>
<td>Computer Science A or AB</td>
<td>3</td>
<td>3</td>
<td>COSC 1336</td>
</tr>
<tr>
<td>Economics Micro</td>
<td>3</td>
<td>3</td>
<td>ECON 2302</td>
</tr>
<tr>
<td>Economics Macro</td>
<td>3</td>
<td>3</td>
<td>ECON 2301</td>
</tr>
<tr>
<td>English Language/Composition</td>
<td>3</td>
<td>3</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>English Literature/Composition</td>
<td>3</td>
<td>3</td>
<td>ENGL 1302</td>
</tr>
<tr>
<td>French Lang</td>
<td>3</td>
<td>8</td>
<td>FREN 1411, 1412</td>
</tr>
<tr>
<td>French Literature</td>
<td>3</td>
<td>8</td>
<td>FREN 1411, 1412</td>
</tr>
<tr>
<td>German Language</td>
<td>3</td>
<td>8</td>
<td>GERM 1411, 1412</td>
</tr>
<tr>
<td>Government and Politics-US</td>
<td>3</td>
<td>3</td>
<td>GOVT 2305</td>
</tr>
<tr>
<td>History-US</td>
<td>3</td>
<td>3</td>
<td>HIST 1301</td>
</tr>
<tr>
<td>European History</td>
<td>3</td>
<td>3</td>
<td>HIST 2311</td>
</tr>
<tr>
<td>World History</td>
<td>3</td>
<td>3</td>
<td>HIST 2321</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3</td>
<td>3</td>
<td>GEOG 1302</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>3</td>
<td>MATH 1342</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3</td>
<td>4</td>
<td>MATH 2413</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3</td>
<td>8</td>
<td>MATH 2413, 2414</td>
</tr>
<tr>
<td>Calculus AB Subscore</td>
<td>3</td>
<td>4</td>
<td>MATH 2413</td>
</tr>
<tr>
<td>Chinese Language/Culture</td>
<td>3</td>
<td>8</td>
<td>CHIN 1411, 1412</td>
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<tr>
<td>Aural Subscore</td>
<td>3</td>
<td>2</td>
<td>MUSI 1216</td>
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<tr>
<td>NonAural Subscore</td>
<td>3</td>
<td>2</td>
<td>MUSI 1211</td>
</tr>
<tr>
<td>Physics B</td>
<td>3</td>
<td>4</td>
<td>PHYS 1301/1101</td>
</tr>
<tr>
<td>Physics C- Mechanics</td>
<td>3</td>
<td>4</td>
<td>PHYS 2325 and 2125</td>
</tr>
<tr>
<td>Physics C- Electrical and Magnetic</td>
<td>3</td>
<td>4</td>
<td>PHYS 2426</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
<td>3</td>
<td>PSYC 2301</td>
</tr>
</tbody>
</table>
International Baccalaureate (IB) Examination Credit

San Jacinto College awards college credit for certain freshmen students who have completed International Baccalaureate (IB) Examinations with a score of 4 or above. In compliance with the Texas Higher Education Coordinating Board regulations, the College awards 24 semester hours or equivalent course credit in appropriate subject areas to those students who have completed the IB diploma program and who have achieved at least the minimum required score on each examination administered as part of the diploma program.

Students should submit scores from completed tests to the Enrollment Services Office who evaluates the scores and authorizes the posting of credit. The current Texas Resident in-district tuition per credit hour fee is charged to record credit. Rules that apply to earning credit by any form of examination appear earlier in the Credit by Examination section of this catalog. Credit by IB examination may be earned in the following courses.

<table>
<thead>
<tr>
<th>IB EXAMINATION</th>
<th>MINIMUM SCORE REQUIRED</th>
<th>SAN JACINTO COLLEGE COURSE</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>4</td>
<td>ARTS 1311</td>
<td>3</td>
</tr>
<tr>
<td>Biology SL</td>
<td>4</td>
<td>BIOL 1406</td>
<td>4</td>
</tr>
<tr>
<td>Biology HL</td>
<td>4</td>
<td>BIOL 1406 and 1407</td>
<td>4, 4</td>
</tr>
<tr>
<td>Business and Management</td>
<td>4</td>
<td>BUSI 1301</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry HL</td>
<td>4</td>
<td>CHEM 1411</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry HL</td>
<td>5</td>
<td>CHEM 1411 and 1412</td>
<td>4, 4</td>
</tr>
<tr>
<td>Computing Studies HL</td>
<td>4</td>
<td>COSC 1336</td>
<td>3</td>
</tr>
<tr>
<td>Economics SL</td>
<td>4</td>
<td>ECON 2301</td>
<td>3</td>
</tr>
<tr>
<td>Economics HL</td>
<td>5</td>
<td>ECON 2301 and 2302</td>
<td>3, 3</td>
</tr>
<tr>
<td>English HL Lang A1 or A2</td>
<td>4</td>
<td>ENGL 1301</td>
<td>3</td>
</tr>
<tr>
<td>English HL Extended Essay</td>
<td>A,B,C</td>
<td>ENGL 1302</td>
<td>3</td>
</tr>
<tr>
<td>Environmental Systems</td>
<td>4</td>
<td>GEOL 1405</td>
<td>4</td>
</tr>
</tbody>
</table>

### FOREIGN LANGUAGES

#### CHINESE

| Language A1 or A2 or B HL | 4 | CHIN 1411, 1412, 2311, and 2312 | 4, 4, 3, 3 |
| Language B SL            | 4 | CHIN 1411 and 1412              | 4, 4     |
| Language AB              | 4 | CHIN 1411                      | 4        |

#### FRENCH

| Language A1 or A2 or B HL | 4 | FREN 1411, 1412, 2311, and 2312 | 4, 4, 3, 3 |
| Language B SL            | 4 | FREN 1411 and 1412              | 4, 4     |
| Language AB              | 4 | FREN 1411                      | 4        |

#### GERMAN

<p>| Language A1 or A2 or B HL | 4 | GERM 1411, 1412, 2311, and 2312 | 4, 4, 3, 3 |
| Language B SL            | 4 | GERM 1411 and 1412              | 4, 4     |
| Language AB              | 4 | GERM 1411                      | 4        |</p>
<table>
<thead>
<tr>
<th>IB Examination</th>
<th>Minimum Score Required</th>
<th>San Jacinto College Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language A1 or A2 or B HL</td>
<td>4</td>
<td>SPAN 1411, 1412, 2311, and 2312</td>
<td>4, 4, 3, 3</td>
</tr>
<tr>
<td>Language B SL</td>
<td>4</td>
<td>SPAN 1411 and 1412</td>
<td>4, 4</td>
</tr>
<tr>
<td>Language AB</td>
<td>4</td>
<td>SPAN 1411</td>
<td>4</td>
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<tr>
<td>Geography</td>
<td>4</td>
<td>GEOG 1301</td>
<td>3</td>
</tr>
<tr>
<td>History (European)</td>
<td>4</td>
<td>HIST 2311</td>
<td>3</td>
</tr>
<tr>
<td>Information Technology</td>
<td>4</td>
<td>BCIS 1305</td>
<td>3</td>
</tr>
<tr>
<td>Math HL</td>
<td>4</td>
<td>MATH 2412 and 2413</td>
<td>4, 4</td>
</tr>
<tr>
<td>Math w/ further math SL</td>
<td>4</td>
<td>MATH 1342</td>
<td>3</td>
</tr>
<tr>
<td>Math Methods SL</td>
<td>4</td>
<td>MATH 1324</td>
<td>3</td>
</tr>
<tr>
<td>Math Studies SL</td>
<td>4</td>
<td>MATH 1332</td>
<td>3</td>
</tr>
<tr>
<td>Music</td>
<td>4</td>
<td>MUSI 1306</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy</td>
<td>4</td>
<td>PHIL 1301</td>
<td>3</td>
</tr>
<tr>
<td>Physics SL</td>
<td>4</td>
<td>PHYS 1401</td>
<td>4</td>
</tr>
<tr>
<td>Physics HL</td>
<td>4</td>
<td>PHYS 1401 and 1402</td>
<td>4, 4</td>
</tr>
<tr>
<td>Psychology</td>
<td>4</td>
<td>PSYC 2301</td>
<td>3</td>
</tr>
<tr>
<td>Social Anthropology</td>
<td>4</td>
<td>ANTH 2346</td>
<td>3</td>
</tr>
<tr>
<td>Theater Arts</td>
<td>4</td>
<td>DRAM 1310</td>
<td>3</td>
</tr>
<tr>
<td>Visual Arts</td>
<td>4</td>
<td>ARTS 1301</td>
<td>3</td>
</tr>
</tbody>
</table>
Credit by Internal Exams

Internal challenge exams are developed by the technical programs, approved by SJCD curriculum teams and administered by the campus testing centers or academic departments. A student must petition the College to receive credit by departmental examination. Internal (departmental) challenge exams can only be attempted once. The instructional dean must approve the petition and designate a faculty member to administer the exam. Before taking the exam the student must pay the business office a nonrefundable $20 fee. The instructional dean evaluates the completed exam and authorizes the dean of enrollment services to record credit as appropriate. The credit will count for residency. The credit hours will count in hours used for financial aid decisions.

Professional certification or state licensure may equate to college credit based upon competencies demonstrated by successfully completing the professional certification or licensure examination. In order to be eligible for this type of credit, the license or certification must be official and current. Only the licensures and certifications that have been evaluated by the curriculum team and approved through the SJCD curriculum approval process are eligible for credit. A student must request to have the credit posted. The credit will count as part of the residency requirement. The credit hours will count in hours used for financial aid decisions. To receive credit, students must:

- Provide evidence of successfully passing the professional certification exam and proof of current or active state of Texas licensure
- Verify licensure or certification provided has been approved for credit by the SJCD curriculum steering committee
- Official copy of licensure or certification provided with application

Before receiving credit, the student must pay the business office a nonrefundable $20 fee per course.
<table>
<thead>
<tr>
<th>Rubric</th>
<th>Number</th>
<th>Title</th>
<th>Hours of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABDR</td>
<td>1431</td>
<td>Basic Refinishing</td>
<td>4</td>
</tr>
<tr>
<td>ABDR</td>
<td>1519</td>
<td>Basic Metal Repair</td>
<td>5</td>
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<tr>
<td>ACNT</td>
<td>1303</td>
<td>Intro to Accounting I</td>
<td>3</td>
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<tr>
<td>AUMT</td>
<td>1407</td>
<td>Automotive Electrical Systems (lab course)</td>
<td>4</td>
</tr>
<tr>
<td>CDEC</td>
<td>1319</td>
<td>Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td>CDEC</td>
<td>1413</td>
<td>Curriculum Resources for Early Childhood Programs</td>
<td>4</td>
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<tr>
<td>CETT</td>
<td>1302</td>
<td>Electricity Principles</td>
<td>3</td>
</tr>
<tr>
<td>CHEF</td>
<td>1401</td>
<td>Basic Food Preparation</td>
<td>4</td>
</tr>
<tr>
<td>CJSA</td>
<td>1308</td>
<td>Criminalistics</td>
<td>3</td>
</tr>
<tr>
<td>CJSA</td>
<td>1322</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CNBT</td>
<td>2342</td>
<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CSME</td>
<td>1310</td>
<td>Introduction to Haircutting and Related Theory</td>
<td>3</td>
</tr>
<tr>
<td>CSME</td>
<td>1354</td>
<td>Artistry of Hair Design I</td>
<td>3</td>
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<tr>
<td>CSME</td>
<td>1501</td>
<td>Orientation to Cosmetology</td>
<td>5</td>
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<tr>
<td>CSME</td>
<td>1553</td>
<td>Chemical Reformation and Related Theory</td>
<td>5</td>
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<tr>
<td>DEMR</td>
<td>1301</td>
<td>Shop Safety and Procedures</td>
<td>3</td>
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<tr>
<td>DFTG</td>
<td>1305</td>
<td>Technical Drafting</td>
<td>3</td>
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<tr>
<td>DFTG</td>
<td>1409</td>
<td>Basic Computer-Aided Drafting</td>
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<tr>
<td>ELPT</td>
<td>1311</td>
<td>Basic Electrical Theory</td>
<td>3</td>
</tr>
<tr>
<td>HART</td>
<td>1407</td>
<td>Refrigeration Principles</td>
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<td>HITT</td>
<td>1305</td>
<td>Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>HPRS</td>
<td>1206</td>
<td>Essentials of Medical Terminology</td>
<td>2</td>
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<tr>
<td>IFWA</td>
<td>1318</td>
<td>Nutrition for the Food Service Professional</td>
<td>3</td>
</tr>
<tr>
<td>INTW</td>
<td>1325</td>
<td>Fundamentals of Networking Technologies</td>
<td>3</td>
</tr>
<tr>
<td>ITSC</td>
<td>1319</td>
<td>Internet/Web Page Development</td>
<td>3</td>
</tr>
<tr>
<td>ITSC</td>
<td>1325</td>
<td>Personal Computer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>ITSE</td>
<td>1329</td>
<td>Programming Logic and Design</td>
<td>3</td>
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<tr>
<td>MDCA</td>
<td>1309</td>
<td>Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>METL</td>
<td>1405</td>
<td>Welding Metallurgy I</td>
<td>4</td>
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<tr>
<td>PHED*</td>
<td>1306</td>
<td>First Aid</td>
<td>3</td>
</tr>
<tr>
<td>PHRA</td>
<td>1305</td>
<td>Drug Classification</td>
<td>3</td>
</tr>
<tr>
<td>PHRA</td>
<td>1309</td>
<td>Pharmacy Math I</td>
<td>3</td>
</tr>
<tr>
<td>PHRA</td>
<td>1347</td>
<td>Pharmacy Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>RADR</td>
<td>1201</td>
<td>Introduction to Medical Radiography</td>
<td>2</td>
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<tr>
<td>VNSG</td>
<td>1320</td>
<td>Anatomy and Physiology for Allied Health</td>
<td>3</td>
</tr>
<tr>
<td>WLDG</td>
<td>1528</td>
<td>Introduction to Shielded Metal Arc Welding</td>
<td>5</td>
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</table>

* Students must provide documentation for Red Cross CPR Certification and First Aid Certification prior to taking the exam.
CPL by Licensure or Industry Certification

San Jacinto Community College District has established equivalent course credit for professional certificates and state or national licensure. Course credit is based on competencies demonstrated through successful completion of the professional certification, or Texas state or national licensure examinations. Students must provide evidence of an official, current Texas or national licensure or professional certificate to receive credit. Credit is generally awarded for introductory level courses only and will not be awarded for core curriculum. At least 25% of the credit hours required for the degree must be earned through instruction at San Jacinto College. Credit by licensure does not apply to academic courses.

Courses for Licensure or Professional Certification

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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</thead>
<tbody>
<tr>
<td>HART 1356</td>
<td>EPA Recovery Certification Preparation</td>
<td>EPA 608 Certification</td>
</tr>
<tr>
<td>RNSG 1105</td>
<td>Nursing Skills I</td>
<td>Active vocational nursing license or paramedic certification plus RNSG 1115, 1106, 1227, and 1161</td>
</tr>
<tr>
<td>RNSG 1161</td>
<td>Clinical - Nursing Introduction</td>
<td>Active vocational nursing license or paramedic certification plus RNSG 1115, 1106, 1227, and 1161</td>
</tr>
<tr>
<td>RNSG 1413</td>
<td>Foundation for Nursing Practice</td>
<td>Active vocational nursing license or paramedic certification plus RNSG 1115, 1106, 1227, and 1161</td>
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<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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<tbody>
<tr>
<td>ACNT 1303</td>
<td>Introduction to Accounting I</td>
<td>Certified Administrative Professional (CAP)</td>
</tr>
<tr>
<td>POFT 1319</td>
<td>Records and Information Management I</td>
<td>Certified Administrative Professional (CAP)</td>
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<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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<tbody>
<tr>
<td>CDEC 1417</td>
<td>Child Development Associate Training I</td>
<td>Child Development Associate credential awarded by Council for Professional Recognition</td>
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<tr>
<td>CDEC 2422</td>
<td>Child Development Associate Training II</td>
<td>Child Development Associate credential awarded by Council for Professional Recognition</td>
</tr>
<tr>
<td>CDEC 2424</td>
<td>Child Development Associate Training III</td>
<td>Child Development Associate credential awarded by Council for Professional Recognition</td>
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<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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</thead>
<tbody>
<tr>
<td>INTW 1325</td>
<td>Fundamentals of Networking</td>
<td>Net+ Certification (completed in last 3 years)</td>
</tr>
<tr>
<td>ITCC 1401</td>
<td>Cisco Exploration 1 – Network Fundamentals</td>
<td>Cisco Certified Network Associate (CCNA) Certification (completed in last 18 months)</td>
</tr>
<tr>
<td>ITCC 1404</td>
<td>Cisco Exploration 2 – Routing Protocols and Concepts</td>
<td>Cisco Certified Network Associate (CCNA) Certification (completed in last 18 months)</td>
</tr>
<tr>
<td>ITCC 2408</td>
<td>Cisco Explorations 3 – LAN Switching and Wireless</td>
<td>Cisco Certified Network Associate (CCNA) Certification (completed in last 18 months)</td>
</tr>
<tr>
<td>ITCC 2410</td>
<td>Cisco Exploration 4 – Accessing the WAN</td>
<td>Cisco Certified Network Associate (CCNA) Certification (completed in last 18 months)</td>
</tr>
<tr>
<td>ITSC 1325</td>
<td>Personal Computer Software</td>
<td>A+ Certification</td>
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<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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<tbody>
<tr>
<td>CSME 2445</td>
<td>Instructional Theory and Clinical Operation</td>
<td>Cosmetology Operator Instructor</td>
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<tr>
<td>CSME 2544</td>
<td>Cosmetology Instructor IV</td>
<td>Cosmetology Operator Instructor</td>
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<thead>
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<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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</thead>
<tbody>
<tr>
<td>CJLE 1333</td>
<td>Traffic and Law Investigation</td>
<td>Texas Commission on Law Enforcement Officers Standards and Education (TCLEOSE) licensing exam after 1983</td>
</tr>
<tr>
<td>CJSA 1348</td>
<td>Ethics in Criminal Justice</td>
<td>Texas Commission on Law Enforcement Officers Standards and Education (TCLEOSE) licensing exam after 1983</td>
</tr>
<tr>
<td>CJSA 1351</td>
<td>Use of Force</td>
<td>Texas Commission on Law Enforcement Officers Standards and Education (TCLEOSE) licensing exam after 1983</td>
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### Culinary Arts

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<th>Course #</th>
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<tbody>
<tr>
<td>CHEF 1205</td>
<td>Sanitation and Safety</td>
<td>ServSafe certification</td>
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### Diagnostic Medical Sonography

<table>
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<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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<tbody>
<tr>
<td>DMSO 1302</td>
<td>Basic Ultrasound Physics</td>
<td>American Registry of Diagnostic Medical Sonographers (ARDMS)</td>
</tr>
<tr>
<td>DMSO 1342</td>
<td>Intermediate Ultrasound Physics</td>
<td>American Registry of Diagnostic Medical Sonographers (ARDMS)</td>
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### Emergency Medical Technician

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSP 1160</td>
<td>Clinical – Emergency Medical Technician</td>
<td>TDH EMT- Basic Certification or higher</td>
</tr>
<tr>
<td>EMSP 1501</td>
<td>Emergency Medical Technician - Basic</td>
<td>TDH EMT- Basic Certification or higher</td>
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### Firefighter Certification

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRS 1301</td>
<td>Firefighter Certification I</td>
<td>Texas Commission on Fire Protection (TCFP) Firefighter Basic Certification or higher</td>
</tr>
<tr>
<td>FIRS 1313</td>
<td>Firefighter Certification III</td>
<td>TCFP Firefighter Basic Certification or higher</td>
</tr>
<tr>
<td>FIRS 1319</td>
<td>Firefighter Certification IV</td>
<td>TCFP Firefighter Basic Certification or higher</td>
</tr>
<tr>
<td>FIRS 1323</td>
<td>Firefighter Certification V</td>
<td>TCFP Firefighter Basic Certification or higher</td>
</tr>
<tr>
<td>FIRS 1329</td>
<td>Firefighter Certification VI</td>
<td>TCFP Firefighter Basic Certification or higher</td>
</tr>
<tr>
<td>FIRS 1333</td>
<td>Firefighter Certification VII</td>
<td>TCFP Firefighter Basic Certification or higher</td>
</tr>
<tr>
<td>FIRS 1407</td>
<td>Firefighter Certification VIII</td>
<td>TCFP Firefighter Basic Certification or higher</td>
</tr>
<tr>
<td>FIRT 1303</td>
<td>Fire Arson Investigation I</td>
<td>TCFP Fire or Arson Investigator Certification</td>
</tr>
<tr>
<td>FIRT 1315</td>
<td>Hazardous Materials I</td>
<td>TCFP HAZMAT Operations</td>
</tr>
<tr>
<td>FIRT 1342</td>
<td>Fire Officer I</td>
<td>TCFP Fire Officer I Certification</td>
</tr>
<tr>
<td>FIRT 1343</td>
<td>Fire Officer II</td>
<td>TCFP Fire Officer II Certification</td>
</tr>
<tr>
<td>FIRT 1345</td>
<td>Hazardous Materials II</td>
<td>TCFP HAZMAT Technicians</td>
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<tr>
<td>FIRT 1408</td>
<td>Inspector I</td>
<td>TCFP Fire Inspector Certification</td>
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<td>FIRT 1440</td>
<td>Inspector II</td>
<td>TCFP Fire Inspector Certification</td>
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<tr>
<td>FIRT 2112</td>
<td>Hazardous Materials Incident Commander</td>
<td>TCFP HAZMAT Incident Commander</td>
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<tr>
<td>FIRT 2305</td>
<td>Fire Instructor I</td>
<td>TCFP Instructor I</td>
</tr>
<tr>
<td>FIRT 2333</td>
<td>Fire Arson Investigation II</td>
<td>TCFP Fire or Arson Investigator Certification</td>
</tr>
<tr>
<td>FIRT 2356</td>
<td>Fire Officer III</td>
<td>TCFP Fire Officer III</td>
</tr>
<tr>
<td>FIRT 2357</td>
<td>Fire Officer IV</td>
<td>TCFP Fire Officer IV</td>
</tr>
<tr>
<td>FIRT 2359</td>
<td>Fire Instructor III</td>
<td>TCFP Fire Instructor III</td>
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### Maritime Transportation

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>NAUT 1372</td>
<td>Seamanship I</td>
<td>U.S. Coast Guard Able Seaman Certification, and U.S. Coast Guard Vessel Security Officer Certification, and U.S. Coast Guard RFPNW Certification or U.S. Coast guard 200 Ton or above Master Certification</td>
</tr>
<tr>
<td>NAUT 1374</td>
<td>Basic Safety and Survival Training</td>
<td>U.S. Coast Guard Able Seaman Certification, or U.S. Coast guard 100 Ton or above Master Certification with STCW and lifeboatman endorsements</td>
</tr>
<tr>
<td>NAUT 2364</td>
<td>Practicum</td>
<td>U.S. Coast Guard Able Seaman Certification, or U.S. Coast guard 100 Ton or above Master Certification</td>
</tr>
<tr>
<td>NAUT 1274</td>
<td>Marine Cargo Operations II</td>
<td>U.S. Coast Guard Tankerman Certification, or US Coast Guard 100 Ton Master Certification</td>
</tr>
<tr>
<td>NAUT 1276</td>
<td>Seamanship II</td>
<td>U.S. Coast Guard 100 Ton or above Master Certification</td>
</tr>
<tr>
<td>NAUT 2471</td>
<td>Terrestrial &amp; Coastal Navigation</td>
<td>U.S. Coast Guard 100 Ton or above Master Certification</td>
</tr>
<tr>
<td>NAUT 1174</td>
<td>Maritime Regulation and Management</td>
<td>U.S. Coast Guard 100 Ton or above Master Certification</td>
</tr>
<tr>
<td>NAUT 2274</td>
<td>Basic Stability and Ship Construction</td>
<td>U.S. Coast Guard 500 Ton or above Master Certification</td>
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<tr>
<td>Course #</td>
<td>Course Name</td>
<td>Licensure or Industry Certification</td>
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<tr>
<td>NAUT 2472</td>
<td>Integrated Operation for the Master Mariner</td>
<td>U.S. Coast Guard Apprentice Mate, or higher towing license</td>
</tr>
<tr>
<td>NAUT 2171</td>
<td>Upgrade to Apprentice Mate</td>
<td>U.S. Coast Guard Apprentice Mate, or higher towing license</td>
</tr>
<tr>
<td>NAUT 2365</td>
<td>Practicum</td>
<td>U.S. Coast Guard Able Seaman Certification, or U.S. Coast Guard 100 Ton or above Master Certification</td>
</tr>
<tr>
<td>NAUT 2272</td>
<td>Radar Observer Unlimited</td>
<td>U.S. Coast Guard Radar Unlimited</td>
</tr>
<tr>
<td>NAUT 1171</td>
<td>Medical Care Provider</td>
<td>U.S. Coast Guard Medical Care Provider Certificate</td>
</tr>
<tr>
<td>NAUT 1273</td>
<td>Engineering Familiarization</td>
<td>U.S. Coast Guard 100 Ton or above Master Certification</td>
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**Medical Assisting**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDCA 1254</td>
<td>Medical Assisting Credential Exam Review</td>
<td>Certified Medical Assistant (CMA)</td>
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</table>

**Medical Laboratory Technology**

<table>
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<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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</thead>
<tbody>
<tr>
<td>PLAB 1223</td>
<td>Phlebotomy</td>
<td>American Society of Clinical Pathologists certification</td>
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**Pharmacy Technician**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHRA 1243</td>
<td>Pharmacy Technician Certification Review</td>
<td>Certified Pharmacy Technician</td>
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**Physical Education**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHED 1306</td>
<td>First Aid</td>
<td>Red Cross CPR Certification and First Aid Certification</td>
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**Real Estate**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELE 1201</td>
<td>Principles of Real Estate I</td>
<td>Active Texas Real Estate Salesperson License</td>
</tr>
<tr>
<td>RELE 1238</td>
<td>Principles of Real Estate II</td>
<td>Active Texas Real Estate Salesperson License</td>
</tr>
<tr>
<td>RELE 1300</td>
<td>Contract Forms and Addenda</td>
<td>Active Texas Real Estate Salesperson License</td>
</tr>
<tr>
<td>RELE 1319</td>
<td>Real Estate Finance</td>
<td>Active Mortgage Loan Originator License</td>
</tr>
<tr>
<td>RELE 1303</td>
<td>Real Estate Appraisal</td>
<td>Active Appraisal License</td>
</tr>
<tr>
<td>RELE 1321</td>
<td>Real Estate Marketing</td>
<td>Current Graduate REALTORS ® Institute (GRI) Designation</td>
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**Surgical Technology**

<table>
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<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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</thead>
<tbody>
<tr>
<td>SRGT 2130</td>
<td>Professional Readiness</td>
<td>Certified Surgical Technologist (CST)</td>
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**Vocational Nursing**

<table>
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<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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</thead>
<tbody>
<tr>
<td>VNSG 1170</td>
<td>Clinical Prep 1</td>
<td>Certified Nurse Aide</td>
</tr>
<tr>
<td>VNSG 1205</td>
<td>NCLEX-PN Review</td>
<td>Licensed Vocational Nurse (LVN)</td>
</tr>
<tr>
<td>VNSG 1323</td>
<td>Basic Nursing Skills*</td>
<td>Certified Nurse Aide</td>
</tr>
</tbody>
</table>

*students will also have to demonstrate skills*
Advanced Placement Without Credit
Many departments permit advanced placement without college credit. Students should contact the department chair for information.

Transcripts from San Jacinto College
The San Jacinto College transcript serves as the student grade report since no other printed grades are provided. Students may print an unofficial transcript online.

Students can obtain an official transcript at no charge by one of three ways: online, in person or in writing.

1. Go to www.sanjac.edu/soslogin, go to Student Records, and Request Official Transcript.

2. To request a transcript in person, bring a photo ID to the Enrollment Services Office. These requests are normally filled immediately. If the student desires for someone else to pick up the transcript, that person needs the student’s written permission (name, student’s generated ID, number and signature plus the name of the authorized individual) as well as his/her own picture ID.

3. Students may send a written request to the Enrollment Services Office for an official transcript. The request for an official transcript should include the student’s name, while enrolled at San Jacinto College, student’s generated ID number or Social Security number, date of birth, dates of attendance, address to which the transcript is to be mailed, a signature, and a copy of their picture ID. Except during registration periods, processing and mailing of transcripts should be completed within two work days of receipt of the request. There is no charge for transcripts.

Official transcripts will not be released if there are any outstanding admission requirements or financial obligations to the College. The College cannot provide official copies of any other college or high school transcripts held. Those should be requested directly from the issuing institutions.

Retention and Disposal of Student Records
San Jacinto College follows the American Association of Collegiate Registrars and Admissions Officers (AACRAO) guidelines and the U.S. Department of Education Local Retention Schedule Junior College as submitted to the Texas State Library and Archives Commission for keeping and disposing of records. The College electronically images and maintains official required documents.

Academic Status
A student’s academic status is calculated each term (Fall, Spring, and Summer) based upon previous academic status, term grade point average (GPA) and cumulative grade point average. All credit courses taken at San Jacinto College, including college preparatory courses, are included in the calculation, except that only the highest grades achieved in repeated courses are counted. No course work from other institutions is included in the San Jacinto College GPA.

Academic Suspension Period
Suspended students must sit out one long term (Fall, Spring, or the entire Summer session). After the student has sat out the suspension period, they must request re-admission and obtain advising before being eligible to enroll again. Students placed on academic suspension will be notified by mail or email that they have been suspended. Students may appeal their suspension as described below when extenuating circumstances exist.

Suspension Appeals
San Jacinto College students on academic suspension who have not completed their term of suspension may appeal for immediate reinstatement when truly extenuating circumstances exist. Request for Appeal of Suspension forms are available in the Educational Planning and Counseling office on each campus. If the Appeals Committee approves the request, the Committee will prescribe specific conditions for enrollment. These conditions may include limits on classes or the number of hours which may be taken, specific grades which must be attained (e.g., C or above; student may not withdraw), requirements for periodic progress reports from the teacher(s) involved and mandatory follow-up counseling. Students who agree to the conditions of enrollment as defined by the Committee will be allowed to re-enroll on suspension override. Failure to meet the terms of the contract will result in immediate execution of the suspension stipulations with no refund of tuition and fees and without further appeal. If the Committee on one campus denies the suspension appeal, the denial is effective on all three San Jacinto College campuses.

Re-enrollment After Suspension
Once the term of suspension has elapsed, students may apply for readmission. The academic status of suspension will prevent registration until mandatory advising has been completed. Students enrolling after their suspension period on academic probation, who achieve an overall institution GPA of 2.0 or greater, will be considered in Good Standing. Students who achieve a term GPA of 2.0 or better, but who do not raise their overall institution GPA of 2.0 or better, will continue on academic probation.
Transfer Students on Probation or Suspension

Students admitted from other institutions on academic Probation or academic Suspension will be treated the same as students from San Jacinto College on Probation or Suspension as described above. Students who fail to report academic status which is less than Good Standing to gain admission may be immediately withdrawn without any refund of tuition and fees paid.

Note: Please see the Academic Probation and Suspension Table for more information.

Student Inquiries

Inquiries about student grades and records should be addressed to the Enrollment Services Office at 281-998-6150.

Academic Probation and Suspension Table

Both the term and the institution GPA are based on the completion of grades A, B, C, D, or F at San Jacinto College.

A student’s academic status is calculated at the end of each Fall, Spring, and Summer term (Summer I and Summer II are combined).

<table>
<thead>
<tr>
<th>Good Standing</th>
<th>Academic Warning</th>
<th>Academic Probation</th>
<th>Academic Suspension</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students are expected to maintain an overall institution GPA of 2.0 or higher. At the conclusion of each term of enrollment, the student will remain in good standing if either of the following is true:</td>
<td>At the end of the first term in which the overall institution GPA is less than 2.0, the student will be placed on academic warning status.</td>
<td>At the end of any term in which the student is on academic warning and the overall institution GPA is less than 2.0, the student will be placed on academic probation. At the end of any term in which the student was on academic probation, these are the possibilities:</td>
<td>At the end of any term in which the student is on academic probation and both the student’s overall institution GPA and his/her GPA from that just completed term fall below 2.0, the student will be placed on academic suspension.</td>
</tr>
<tr>
<td>1) If the overall institution GPA is 2.0 or greater when the grades from the recently completed term are included.</td>
<td>At the end of any term in which the student was on academic warning status, these are the possibilities:</td>
<td>1) If the student’s overall institution GPA is 2.0 or higher, the student’s academic status will revert to good standing.</td>
<td>Students on academic suspension will not be eligible to re-enroll until one term has passed.</td>
</tr>
<tr>
<td>2) If no grades of A, B, C, D, F, or FX are reported for the term, there will be no recalculation of the overall institution GPA.</td>
<td>1) If the overall institution GPA is 2.0 or higher, the student’s status will revert to good standing.</td>
<td>2) If the overall institution GPA is less than 2.0, but the GPA for the recently completed term is 2.0 or better, the student will remain on academic probation.</td>
<td>Students on academic suspension will be required to meet with an educational planner/counselor prior to re-enrollment.</td>
</tr>
<tr>
<td>Note: Students will remain on academic probation after each term in which his/her overall institution GPA is less than 2.0, even though the most recent term GPA may be 2.0 or higher.</td>
<td>2) If the overall institution GPA is less than 2.0, the student will be placed on academic probation.</td>
<td>3) If both the student’s overall institution GPA and the GPA from the recently completed term fall below 2.0, the student will be placed on academic suspension.</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: If at the end of any term when the overall institution GPA is recalculated a student’s status reaches good standing, the sequence begins over. For example, if the student has been on academic warning but then raised his/her status to good standing, then the next term in which the overall institution GPA falls below 2.0, the student will again be placed on academic warning status.
San Jacinto Community College District

Educational Programs
# ASSOCIATE DEGREE PLAN 2015-2016
## REQUIRED TRANSFER CORE CURRICULUM

### TRANSFER PATH
- Students seeking an associate of arts degree should explore the institutions to which they plan to transfer before determining which courses they should take for academic transfer.
- Students seeking an associate of arts in teaching should refer to the catalog for specific courses.
- Students seeking an associate of science degree should take a minimum of 12 hours of mathematics, computer science, or science beyond the core curriculum.
- Students seeking an associate of science in engineering science should refer to the catalog for specific courses.

### INSTITUTIONAL OPTION - TWO COURSES
- Students seeking an associate of arts degree should explore the institutions to which they plan to transfer before determining which courses they should take for academic transfer.
- Students seeking an associate of arts in teaching should refer to the catalog for specific courses.
- Students seeking an associate of science degree should take a minimum of 12 hours of mathematics, computer science, or science beyond the core curriculum.
- Students seeking an associate of science in engineering science should refer to the catalog for specific courses.

### CORE CURRICULUM REQUIREMENTS

#### MINIMUM REQUIRED CREDIT HOURS

<table>
<thead>
<tr>
<th>Component Area</th>
<th>Minimum Required Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications (010) - two courses</td>
<td>6 hours</td>
</tr>
<tr>
<td>Mathematics (020) - one course (Prerequisites enforced)</td>
<td>3 hours</td>
</tr>
<tr>
<td>Life and Physical Sciences (030) - two courses</td>
<td>6 hours</td>
</tr>
<tr>
<td>Language, Philosophy, and Culture (040) - one course [Humanities]</td>
<td>3 hours</td>
</tr>
<tr>
<td>Creative Arts (050) - one course [Fine Arts]</td>
<td>3 hours</td>
</tr>
<tr>
<td>American History (060) - two courses</td>
<td>6 hours</td>
</tr>
<tr>
<td>Government/Political Science (070) - two courses</td>
<td>6 hours</td>
</tr>
<tr>
<td>Social and Behavioral Sciences (080) - one course</td>
<td>3 hours</td>
</tr>
<tr>
<td>Component Area Option (090)</td>
<td>6 hours</td>
</tr>
</tbody>
</table>

Two science lab courses are required and can be used to meet this component.

**CHIN 1411, 1412; FREN 1411, 1412; GERM 1411, 1412; SGNL 1401, 1402; SPAN 1411, 1412; SPCH 1311, 1315, 1318, 1321; PHED 1164**

Any course in the core curriculum that has not been used to meet another core curriculum area can be used in the Component Area Option.

**42 hours**

**60 total hours**
Educational Programs

Associate Transfer Degrees
San Jacinto College offers a variety of certificates and degrees. Students are encouraged to complete the requirements of an associate degree at San Jacinto College even if they are planning to transfer to another college or university to complete a baccalaureate degree. One advantage of completing a degree is the fact that this action reflects commitment to a specific educational goal and success in meeting that goal. Earning an associate degree is evidence of taking one definable step beyond a high school diploma or the high school equivalency examination, and it is the minimum educational requirement for employment in certain positions in area businesses and industries. The associate of arts (A.A.), associate of science (A.S.), and associate of arts in teaching (A.A.T.) degrees are designed for students who plan to transfer to a four-year or upper-level college or university. This type of degree includes general education courses such as English, mathematics, history, and government, which are considered to be core requirements for most baccalaureate degree programs. Many students refer to these courses as “the basics.” (See The Basics—Core Curriculum section).

An associate degree has three parts: a 42-hour core curriculum, which provides general education; a 6-hour institutional option; and a 12-hour transfer path, which collectively leads to the 60-hour associate degree.

Associate of Arts Degree
Four-year and upper-level colleges and universities offer majors within the baccalaureate degree. San Jacinto College offers many courses in the transfer path that would meet the requirements of a major. Students may prepare to transfer to a particular program at an upper-level institution by either (1) completing the core requirements of the associate degree at San Jacinto College and selecting courses in their transfer path that will lead to a major for the baccalaureate, or (2) selecting courses as specified in the transfer plans developed by San Jacinto College in cooperation with upper-level institutions to which students transfer. Those plans, which are available in the educational planning and counseling center on each San Jacinto College campus, are designed to prepare students to transfer to a particular four-year or upper-level college or university by specifying the courses required to complete the first two years of a baccalaureate degree in a particular major. Students choosing to pursue an associate of arts degree should select from among General studies, Social and Behavioral Science, Business Administration, Fine Arts, or Communication.

1G-STUDY
12 SCH of Academic courses

1SOC-BEHV
12 SCH in any combination of ANTH, CRIJ, GEOG, GOVT, HIST, HUMA, PHIL, PSYC SOCI.

1BUSINESS
12 SCH in any combination of ACCT, AGRI, BCIS, BUSI, ECON, or MARA.

1FINEARTS
12 SCH in any combination of ARTS, DANC, DRAM, MUAP, MUEN, or MUSI.

1COMM
12 SCH in any combination of CHIN, COMM, ENGL, FREN, GERM, SGNL, SPAN, or SPCH.

Associate of Arts in Teaching Degree
The Associate of Arts in Teaching (A.A.T.) is a Texas Higher Education Coordinating Board-approved collegiate degree program consisting of lower-division courses intended for transfer to baccalaureate programs that lead to initial Texas teacher certification. The A.A.T. degree, as defined by the Coordinating Board, is fully transferable to all Texas public universities. Because the A.A.T. fulfills the requirements of the field of study curriculum statutes and Coordinating Board rules, all Texas public universities must accept the A.A.T. curricula if they offer the applicable baccalaureate degrees leading to initial teacher certification.

Students who complete the A.A.T. will be required to meet any and all entrance requirements of the receiving university and the educator preparation program, including grade point averages and/or testing requirements.

EC-6
Completed core curriculum (42 SCH) plus MATH 1350, MATH 1351, or equivalent (6 SCHs) EDUC 1301, EDUC 2301 (6 SCHs) Additional science beyond Life and Physical Science

4-8, EC-12 Special Education
Completed core curriculum (42 SCH) plus MATH 1350, MATH 1351, or equivalent (6 SCHs) EDUC 1301, EDUC 2301 (6 SCHs) Additional science beyond Life and Physical Science

8-12, EC-12 Other Than Special Education
Completed core curriculum (42 SCH) plus EDUC 1301, EDUC 2301 (up to 6 SCHs) Content area teaching fields/academic disciplines (up to 6 SCHs)

Associate of Arts in Music
Associate of Arts (A. A.) in Music
The Texas Higher Education Coordinating Board allows a community college to combine a Field of Study (FOS) and a portion of the core curriculum, including government and history, to create a 60 SCH degree. The Associate of Arts in Music is a combination of the Music FOS and the College core curriculum.
It has been designed to apply to Bachelor of Music (B.M.), Bachelor of Arts (B.A.), Bachelor of Music Education (B.M.Ed.) or other baccalaureate-level music degrees as deemed appropriate by the awarding institution. Courses in the field of study for music include the following:

<table>
<thead>
<tr>
<th>MUSIC FOS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
</tr>
<tr>
<td><strong>Fall</strong></td>
</tr>
<tr>
<td>MUSI 1211</td>
</tr>
<tr>
<td>MUSI 1216</td>
</tr>
<tr>
<td>MUEN</td>
</tr>
<tr>
<td>MUAP</td>
</tr>
<tr>
<td>CORE Curriculum (010)</td>
</tr>
<tr>
<td>EDUC/PSYC 1300</td>
</tr>
<tr>
<td>MUSI 1181</td>
</tr>
<tr>
<td><strong>Semester Total</strong></td>
</tr>
<tr>
<td><strong>Spring</strong></td>
</tr>
<tr>
<td>MUSI 1212</td>
</tr>
<tr>
<td>MUSI 1217</td>
</tr>
<tr>
<td>MUEN</td>
</tr>
<tr>
<td>MUAP</td>
</tr>
<tr>
<td>Core curriculum (010)</td>
</tr>
<tr>
<td>Core curriculum (020)</td>
</tr>
<tr>
<td>MUSI 1182</td>
</tr>
<tr>
<td><strong>Semester Total</strong></td>
</tr>
<tr>
<td><strong>Summer</strong></td>
</tr>
<tr>
<td>Core curriculum (030), (090)</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
</tr>
<tr>
<td><strong>Fall</strong></td>
</tr>
<tr>
<td>MUSI 2211</td>
</tr>
<tr>
<td>MUSI 2216</td>
</tr>
<tr>
<td>MUEN</td>
</tr>
<tr>
<td>MUAP</td>
</tr>
<tr>
<td>CORE Curriculum (040)</td>
</tr>
<tr>
<td>CORE Curriculum (060)</td>
</tr>
<tr>
<td>MUSI 2181</td>
</tr>
<tr>
<td><strong>Semester Total</strong></td>
</tr>
<tr>
<td><strong>Spring</strong></td>
</tr>
<tr>
<td>MUSI 2212</td>
</tr>
<tr>
<td>MUSI 2217</td>
</tr>
<tr>
<td>MUEN</td>
</tr>
<tr>
<td>MUAP</td>
</tr>
<tr>
<td>MUSI 1307</td>
</tr>
<tr>
<td>Core curriculum (060)</td>
</tr>
<tr>
<td>MUSI 2182</td>
</tr>
<tr>
<td><strong>Semester Total</strong></td>
</tr>
</tbody>
</table>

*If music fundamentals is required. Theory I and ET/SS I may be taken in the Spring semester with Theory II and ET/SS II taken in the Summer term. Fundamentals may also be taken in the Summer term before the first Fall term.

**Private piano lessons may be taken by those with a substantial piano background, class piano not required for piano majors. Class piano prepares Music Majors for the Piano Proficiency exams they will face upon transfer because keyboard (piano) competency is a requirement for most baccalaureate degrees.

### Associate of Science Degree

The associate of science degree (A.S.) is designed for students who plan to transfer to a four-year or upper-level college or university and major in mathematics, one of the sciences (biology, chemistry, geology, physics, biotechnology, or related field), engineering, computer science, or a baccalaureate degree in nursing. (See the Core Curriculum and Field of Study sections.) The associate of science degree differs from an associate of arts degree in the amount or level of mathematics and science required for degree completion. A minimum of 12 hours of mathematics or science beyond the core requirement will be required for the degree. Please note the Field of Study associate of science degree options contain state-required courses.

Students seeking an associate of science degree should take science courses designed for majors rather than courses for non-majors. Science courses designed for allied health students are not intended for academic transfer towards a science major.

Students choosing to pursue an associate of science degree should select from among Life Science, Physical Science, Computer Science, or Mathematics.

**LIFESCI**
12 SCH in any BIOL, or CHEM, (except BIOL 1308/1108 and 1309/1109; CHEM 1305/1105 and 1307/1107).

**PHYSCI**
12 SCH in any CHEM, GEOL, or PHYS (except CHEM 1305/1105 and 1307/1107; GEOL 1301/1101).

**COSCI**
COSC 1336 and 1337; and 6 SCH from COSC 2326, 2336, MATH 2413, 2414, or PHYS 2325/2125 or 2326/2126.

**MATH**
12 SCH in MATH 2318, 2320, 2413, 2414, or 2415.

### Associate of Science in Engineering Science Degree

The Associate of Science in Engineering Science (A.S.E.S) is a Texas Higher Education Coordinating Board-approved collegiate consisting of lower-division courses intended for transfer to baccalaureate programs that lead to an engineering degree. At this time, San Jacinto College offers the courses leading to transfer into
mechanical engineering. The A.S.E.S. degree, as defined by THECB, is fully transferable to Texas public universities which participate in the Tuning In Texas articulation agreement (transfer compact).

Students who complete the A.S.E.S. will be required to meet any and all entrance requirements of the receiving institution, including grade point averages and/or testing requirements.

**ENGINEER**

First Semester
- MATH 2413 Calculus I (020)
- CHEM 1311 General Chemistry I (030)
- CHEM 1111 General Chemistry I Laboratory (090)
- ENGR 1201 Introduction to Engineering*
- EDUC/PSYC 1300 Learning Framework
- ENGL 1301 English Composition I (010)

Second Semester
- MATH 2414 Calculus II
- PHYS 2325 University Physics I (030)
- PHYS 2125 University Physics I Laboratory (090)
- GOVT 2305 Federal Government (070)
- ENGL 1302 or 2311 English Composition II or Technical Writing (Recommended) (010)
- ENGR 1304 Engineering Graphics I
  or
- CHEM 1312/1112 General Chemistry II with Laboratory

Third Semester
- MATH 2415 Calculus III
- PHYS 2326 University Physics II (090)
- PHYS 2126 University Physics II Laboratory (090)
- ENGR 2304 Programming for Engineers
- HIST 1301 United States History I (060)
- ENGR 2301 Engineering Mechanics: Statics
  or
- CHEM 2323/2123 Organic Chemistry I with Laboratory
  or
- COSC 1337 Fundamentals of Programming II

Fourth Semester
- MATH 2320 Differential Equations
- ENGR 2305/2105 Electrical Circuits I with Laboratory
- HIST 1302 United States History II (060)
- GOVT 2306 Texas Government (070)
- ENGR 2302 Engineering Mechanics: Dynamics
  or
- CHEM 2325/2125 Organic Chemistry II with Laboratory
  or
- ENGR 2308 Engineering Economics

*This course meets the computer literacy requirement for engineering science degree.

As with all transfer degrees, students should contact the upper-level institution regarding baccalaureate degree requirements. The educational planners and academic advisors can assist with this.

**“The Basics”**

**Core Curriculum/General Education Outcomes**

Texas law mandates that all state-supported colleges and universities have a core curriculum consisting of 42 semester credit hours (SCH) that will automatically transfer to all Texas public colleges and universities. Students often refer to these courses as “the basics.” Embedded within the 42-hour core curriculum are general education student learning outcomes signifying what students learn by earning an Associate of Arts (A.A.), Associate of Science (A.S.), or Associate of Arts in Teaching (A.A.T.). The requirements of the Associate of Science in Engineering Science (A.S.E.S.) include some, but not all, of the 42-hour core curriculum. Embedded in technical programs, leading to an Associate of Applied Science (A.A.S.), are 15 hours of general education drawn from courses found in the core curriculum. General education student learning outcomes represent the core objectives outlined by the Texas Higher Education Coordinating Board. San Jacinto College general education outcomes include the following:

1. **Communication Skills** – Students will communicate ideas, express feelings, and support conclusions effectively in written, oral, and visual formats.

2. **Critical Thinking Skills** – Students will develop habits of mind, allowing them to appreciate the processes by which scholars in various disciplines organize and evaluate data and use the methodologies of each discipline to understand the human experience.

3. **Empirical and Quantitative Skills** – Students will develop quantitative and empirical skills to understand, analyze, and explain natural, physical, and social realms.

4. **Teamwork** – Students will consider different points of view and work interdependently to achieve a shared purpose or goal.

5. **Personal Responsibility** – Students will develop habits of intellectual exploration, personal responsibility, and physical wellbeing.

6. **Social Responsibility** – Students will demonstrate a global perspective toward issues of culture, society, politics, environment, and sustainability.

Students must complete the 42-hour (SCH) core in the following areas:
- Communications (010)
- Mathematics (020)
- Life and Physical Science (030)
- Language, Philosophy, and Culture (040)
- Creative Arts (050)
- American History (060)
- Government/Political Science (070)
- Behavioral and Social Sciences (080)
- Component Area Option (090)

**Communications (2 courses) 6 SCH**
- ENGL 1301 Composition I (required)
- ENGL 1302 Composition II
- ENGL 2311 Technical Writing
## Educational Programs

### Mathematics (1 course) 3 SCH
- **MATH 1314** College Algebra
- **MATH 1316** College Trigonometry
- **MATH 1324** Finite Mathematics
- **MATH 1325** Calculus with Applications
- **MATH 1332** College Mathematics for Liberal Arts
- **MATH 1342** Statistics
- **MATH 2318** Linear Algebra
- **MATH 2320** Differential Equations
- **MATH 2412** Pre-Calculus
- **MATH 2413** Calculus I
- **MATH 2414** Calculus II

*Students who have taken **MATH 1324, 1325, and 1332 are not recommended for students pursuing mathematics or science.*

**Students who have taken **MATH 1324, 1325, and 1332 are not recommended for students pursuing mathematics or science.*

**Students who have taken **MATH 1342 is required for a bachelor’s degree in nursing.

### Life and Physical Sciences (2 courses) 6 SCH
Students must be simultaneously co-enrolled in the co-requisite science lab.
- **BIOL 1306** General Biology I
- **BIOL 1307** General Biology II
- **BIOL 1308** Biology I for Non-Science Majors
- **BIOL 1309** Biology II for Non-Science Majors
- **BIOL 1311** General Botany
- **BIOL 1313** General Zoology
- **BIOL 2301** Human Anatomy and Physiology I
- **BIOL 2302** Human Anatomy and Physiology II
- **CHEM 1305** Introductory Chemistry I
- **CHEM 1307** Introductory Chemistry II
- **CHEM 1311** General Chemistry I
- **CHEM 1312** General Chemistry II
- **ENVR 1301** Environmental Science I: Principles of Environmental Systems
- **GEOL 1301** Physical Geology
- **GEOL 1303** Historical Geology
- **GEOL 1304** Environmental Geology
- **GEOL 1347** Meteorology
- **PHYS 1301** College Physics I
- **PHYS 1302** College Physics II
- **PHYS 1303** Astronomy I: Planetary Astronomy II: Stellar/Galactic
- **PHYS 2325** University Physics I
- **PHYS 2326** University Physics II

*Students who have taken **BIOL 1308, 1309 and CHEM 1305, 1307, and GEOL 1301 do not meet the requirements for science majors.*

**Students who have taken **BIOL 2301 and 2302 are designed for allied health majors and not for academic transfer as science majors.

### Language, Philosophy, and Culture (1 course) 3 SCH
(Also referred to as Humanities)
- **ENGL 2322** A Survey of Early British Literature
- **ENGL 2323** A Survey of Later British Literature
- **ENGL 2327** A Survey of Early American Literature
- **ENGL 2328** A Survey of Later American Literature
- **ENGL 2332** A Survey of Early World Literature
- **ENGL 2333** A Survey of Later World Literature

**Students who have taken **ENGL 2322, 2323, 2327, 2328 are required for a bachelor’s degree in nursing.

### Creative Arts (1 course) 3 SCH
(Also referred to as Fine Arts)
- **ARTS 1301** Art Appreciation
- **ARTS 1303** Art History I
- **ARTS 1304** Art History II
- **DANC 2303** Dance Appreciation
- **DRAM 1310** Theatre
- **DRAM 2366** Film Appreciation I
- **MUSI 1306** Listening to Music
- **MUSI 1307** Survey of Music Literature
- **MUSI 1310** American Popular Music

### American History (2 courses) 6 SCH
- **HIST 1301** American History Before 1877
- **HIST 1302** American History After 1877
- **HIST 2301** History of Texas
- **HIST 2302** Mexican-American History I
- **HIST 2303** Mexican-American History II

### Government/Political Science (2 courses) 6 SCH
- **GOVT 2305** Federal Government
- **GOVT 2306** Texas Government

*Students who have taken **GOVT 2301 or GOVT 2302, but not both, should check with an educational planner on how to complete the 6 SCH.
Students should plan core curriculum courses that would meet baccalaureate degree requirements at the four-year institution.

### Institutional Option

In addition to the 42-hour core curriculum, San Jacinto College requires six (6) hours of credit in the Institutional Option — a student success course and a computer literacy course. The College has determined that these courses improve student success in education and professional life. Students who are determined to be college-ready based on placement scores are required to take either EDUC 1300 Learning Framework or PSYC 1300 Learning Framework. Students who require college preparatory course work are required to take GUST 0305 College Student Success as part of their course work. A student who has completed GUST 0305 may choose to take an academic elective in lieu of EDUC 1300 or PSYC 1300 for 3 hours of the institutional option.

Students are required to take either BCIS 1305 Business Computer Applications or ITSC 1309 Integrated Software Applications to complete the computer literacy requirement. Students can opt out of the computer literacy requirement by scoring more than 75 percent or higher on the computer literacy exam. Students are only allowed to take the test once. There is a $20 exam fee. The computer literacy exam is administered by the Testing Center on each campus. Students who successfully pass the computer literacy exam may choose to take an elective that would apply towards their transfer degree. Credit-by-exam is not awarded for passing the computer literacy exam.

Student records reviewed for graduation as part of the reverse articulation state-mandated requirement will not be required to complete computer literacy. The completion of the course work at the partner university will fulfill the computer literacy requirement for graduation. These students will use any other academic elective to fulfill the Institutional Option hours.

### Transfer Path

San Jacinto College offers academic transfer courses — that is, courses found in the Academic Course Guide Manual (ACGM) — for those students who wish to pursue a baccalaureate degree at a four-year or upper-level college or university. Before enrolling in academic transfer courses, students should discuss their career goals with an educational planner/counselor and explore the requirements for meeting those goals. Students should research the next level of their education and determine if lower-division academic transfer courses will meet the requirements of the baccalaureate institution. If a student accumulates additional hours beyond the core curriculum, those hours may apply to the transfer path and become part of the associate degree.

Students should consider all options and should define the requirements for each option. Those considerations should include determining whether or not the college or university offers the program of study they plan to pursue, if they are eligible for the program, and if they are able to meet the enrollment and financial requirements.

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**Social and Behavioral Sciences (1 course) 3 SCH**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 2302</td>
<td>Introduction to Archaeology</td>
</tr>
<tr>
<td>ANTH 2346</td>
<td>General Anthropology</td>
</tr>
<tr>
<td>ANTH 2351</td>
<td>Cultural Anthropology</td>
</tr>
<tr>
<td>ECON 2301</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ECON 2302</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>GEOG 1303</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>GOVT 2304</td>
<td>Introduction to Political Science</td>
</tr>
<tr>
<td>HIST 2311</td>
<td>History of Western Civilization Before 1660</td>
</tr>
<tr>
<td>HIST 2312</td>
<td>History of Western Civilization Since 1660</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology</td>
</tr>
<tr>
<td>SOCI 1301</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>SOCI 2319</td>
<td>Multi-Cultural Studies</td>
</tr>
</tbody>
</table>

**Component Area Option (1 course) 6 SCH**

2 SCH in this option can include the labs for science courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 1311</td>
<td>Introduction to Speech Communication</td>
</tr>
<tr>
<td>SPCH 1315</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>SPCH 1318</td>
<td>Interpersonal Communications</td>
</tr>
<tr>
<td>SPCH 1321</td>
<td>Business and Professional Speech</td>
</tr>
<tr>
<td>PHED 1164</td>
<td>Introduction to Physical Fitness and Wellness</td>
</tr>
<tr>
<td>CHIN 1411</td>
<td>Beginning Chinese I</td>
</tr>
<tr>
<td>CHIN 1412</td>
<td>Beginning Chinese II</td>
</tr>
<tr>
<td>FREN 1411</td>
<td>Beginning French I</td>
</tr>
<tr>
<td>FREN 1412</td>
<td>Beginning French II</td>
</tr>
<tr>
<td>GERM 1411</td>
<td>Beginning German I</td>
</tr>
<tr>
<td>GERM 1412</td>
<td>Beginning German II</td>
</tr>
<tr>
<td>SGNL 1401</td>
<td>American Sign Language I</td>
</tr>
<tr>
<td>SGNL 1402</td>
<td>American Sign Language II</td>
</tr>
<tr>
<td>SPAN 1411</td>
<td>Beginning Spanish I</td>
</tr>
<tr>
<td>SPAN 1412</td>
<td>Beginning Spanish II</td>
</tr>
</tbody>
</table>

Other courses that may be used in this component may include any core curriculum course that has not been used to fulfill a previous component.

If a student successfully completes San Jacinto College’s 42-hour core curriculum, that block of courses must be substituted for the receiving institution’s core curriculum. A student may not be required to take additional core curriculum courses to meet the requirements of the core. Students who transfer without completing the core curriculum shall receive academic credit in the core curriculum of the receiving institution for each of the courses that the student has successfully completed in the San Jacinto College core curriculum.
Students should discuss TSI-required test scores with an educational planner/counselor and understand what the test scores mean and how they may affect the selection of courses. While college preparatory courses are important for student success, these courses do not transfer for college credit applied to a degree. The Course Descriptions section of the Catalog notes that many courses have reading, writing, or mathematics skill requirements, which are determined by the placement tests students take upon entry.

Counselors are available to help students determine which and how many courses they should take. The normal load in a Spring or Fall term is 15 or 16 credit hours; however, students who work more than 10 hours a week, have family obligations, or commute long distances should take fewer hours.

After talking with an educational planner/counselor, students should consider other steps involved in selecting and completing degree requirements. They should consider taking review courses or college preparatory courses if their backgrounds are weak in certain subjects or if a long period of time has passed since they studied a particular subject. Students should take courses in the proper sequence. Some courses have course prerequisites, meaning that certain courses must be completed prior to enrolling in more advanced courses.

Students who have completed college credit at another accredited college or university prior to enrolling at San Jacinto College must submit official transcripts to the Enrollment Services Office. Students pursuing a degree at San Jacinto College must request that those transcripts be evaluated in order to determine which courses will transfer and apply to the majors which they have selected at San Jacinto College.

Field of Study

Field of study curricula were mandated in Senate Bill 148 of the 75th Texas Legislature (1997). Core curricula and field of study curricula are intended to facilitate free transferability of lower-division academic courses among Texas public colleges and universities, if a student successfully completes a field of study curriculum. Fields of study are developed by the Texas Higher Education Coordinating Board, but not for all majors. The block of courses in the field of study may be transferred to a general academic teaching institution in Texas and must be substituted for that institution’s lower-division (freshman and sophomore level) requirements for the degree program in that field of study. The student will receive full academic credit toward the degree program for the block of courses transferred.

A student who transfers from one institution of higher education to another, without completing all courses in the field of study curriculum at the sending institution, will receive academic credit in the field of study curriculum of the receiving institution for each of the courses that the student has successfully completed. Following receipt of credit for these courses, the student may be required to satisfy the remaining course requirements in the field of study curriculum at the receiving institution. A student concurrently enrolled at more than one institution of higher education should follow the field of study curriculum requirements of the institution at which the student is classified as a degree-seeking student.

The academic A.A. and A.S. degree plans are designed to allow smooth transfer into a baccalaureate degree program at an upper-level institution. The Texas Higher Education Coordinating Board developed selected Fields of Study for specific academic majors. In general, a student planning to complete a baccalaureate degree in one of these areas is best served by pursuing the Associate Field of Study A.A. or A.S. degree plans. A separate degree plan has been provided for each of the currently approved fields of study options under the associate of arts or associate of science degrees.

If a course is not listed as a field of study course, a student can still transfer the course if there is a local agreement between the sending and receiving institutions.

For a number of students, credits in some of these fields of study courses would also satisfy components of the core curriculum.

Field of Study Curriculum for Business

The Associate of Arts in Business Field of Study curriculum has been adopted to meet the needs of those students wishing to transfer into a Bachelor of Business Administration (B.B.A.) degree program at an upper-level institution. The curriculum would also apply to institutions that award the Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degree with a major in business, including all business specializations. Courses in the field of study curriculum for business include the following:

- ACCT 2301 Accounting Principles I
- ACCT 2302 Accounting Principles II
- BCIS 1305 Business Computer Applications
- ECON 2301 Principles of Macroeconomics
- ECON 2302 Principles of Microeconomics
- MATH 1325 Calculus with Applications
- SPCH 1321 Professional Speech (preferred) or
- SPCH 1315 Public Speaking or Business

Students should plan core curriculum and transfer courses that would meet baccalaureate degree requirements at the four-year institution.

Field of Study Curriculum for Communications

The A.A. in Communication Field of Study curriculum has been adopted to meet the needs of those students wishing to transfer into a Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degree at an upper-level institution. Communication degrees must be flexible and adaptable due to rapidly changing and emerging communication technologies. The Field of Study curriculum provides a framework within which (1) current students may transfer more easily between state-supported institutions and (2) new communication media degrees may be developed or adapted as the communication technology evolves. The Associate of Arts in Communications would be appropriate for students interested in majoring in advertising or public relations, journalism or mass communications, radio and television broadcasting, or broadcast journalism or general communications; communication studies; speech communication; speech and rhetorical studies; or organizational...
communications. Courses in the field of study curriculum for communication include the following:

- COMM 1307  Mass Communications
- COMM 1318  Photography I
- COMM 2311  Reporting I
- COMM 2315  Reporting II
- COMM 2327  Principles of Advertising

Students should plan core curriculum and transfer courses that would meet baccalaureate degree requirements at the four-year institution.

Field of Study Curriculum for Computer Science

The Associate of Science (A.S.) in Computer Science Field of Study curriculum has been adopted to meet the needs of those students wishing to transfer into a Bachelor of Science (B.S.) in Computer Science at an upper-level institution. Courses for field of study curriculum for computer science include the following:

- COSC 1336  Programming Fundamentals I
- COSC 1337  Programming Fundamentals II
- COSC 2325  Computer Organization and Machine Language
- COSC 2336  Programming Fundamentals III
- MATH 2413  Calculus I
- MATH 2414  Calculus II
- PHYS 2425  University Physics I 2325/2125
- PHYS 2426  University Physics II 2326/2126

Students should plan core curriculum and transfer courses that would meet baccalaureate degree requirements at the four-year institution.

Field of Study Curriculum for Criminal Justice

The Associate of Arts (A.A.) in Criminal Justice Field of Study curriculum has been designed to meet the needs of those students wishing to transfer into a Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) with a major in criminal justice at an upper-level institution, including all criminal justice specializations. Up to a total of six additional credit hours of criminal justice-related lower-division course work may be transferred by local agreement or required by the receiving institution, as long as the additional credit does not duplicate any other requirement within the field of study curriculum. Courses in the field of study for criminal justice include the following:

- CRIJ 1301  Introduction to Criminal Justice
- CRIJ 1306  Court Systems & Practices
- CRIJ 1310  Fundamentals of Criminal Law
- CRIJ 2313  Correctional Systems & Practices
- CRIJ 2328  Police Systems & Practices

Students should plan core curriculum and transfer courses that would meet baccalaureate degree requirements at the four-year institution.

Field of Study Curriculum for Engineering

The Associate of Science (A.S.) in Engineering Field of Study curriculum has been designed to promote maximum transferability for students while still preserving appropriate curricular diversity for institutions.

(Note: The field of study curriculum contains no field-specific courses for the various branches of engineering.)

Courses in the field of study for engineering that are offered at San Jacinto college include the following courses:

- *CHEM 1412  General Chemistry II
- *MATH 2318  Linear Algebra
- *MATH 2320  Differential Equations
- MATH 2413  Calculus I
- MATH 2414  Calculus II
- MATH 2415  Calculus III
- PHYS 2425  University Physics I 2325/2125
- PHYS 2426  University Physics II 2326/2126

*To be taken only if required by specific programs at transfer institutions.

Courses contained in the field of study curriculum for engineering will transfer freely among Texas institutions of higher education if the program of the receiving institution requires them. Receiving institutions may, however, require transfer students to successfully complete courses that are not part of this field of study curriculum, if completion of those courses is required of all students to receive a baccalaureate degree in engineering. In addition, the receiving institution can specify minimum acceptable grades for courses accepted in transfer.

Field of Study Curriculum for Mexican American Studies

The following set of fully-transferable courses, totaling 18 semester credit hours (SCH), has been adopted as a field of study for students seeking a bachelor’s degree in Mexican-American Studies. Courses in the field of study for Mexican-American studies include the following:

- ENGL 2351  Mexican-American Literature
- GOVT 2311  Mexican-American Politics
- HIST 2327  Mexican-American History I
- HIST 2328  Mexican-American History II
- HUMA 1305  Introduction to Mexican-American Studies
- HUMA 1311  Mexican-American Fine Arts Appreciation
- SPAN 2312  Spanish IV

Students should plan core curriculum and transfer courses that would meet baccalaureate degree requirements at the four-year institution.
Field of Study Curriculum for Music

The Associate of Arts (A.A.) in Music Field of Study curriculum has been designed to apply to the bachelor of music (B.M.) degree, but may also be applied to the Bachelor of Arts (B.A.), Bachelor of Music Education (B.M.Ed.) or other baccalaureate-level music degrees as deemed appropriate by the awarding institution. Courses in the field of study for music include the following:

- Applied Study (MUAP) 8 SCH
- Ensemble (MUEN) 4 SCH
- Music Literature (MUSI 1307) 3 SCH
- Theory/Aural Skills (MUSI) 16 SCH

For students planning to major in music at an institution of higher education, completion of the field of study is deemed more important than completion of the associate degree. Students can complete an associate degree after transferring to the institution of higher education through a process called reverse transfer.

The field of study curriculum shall consist of 27 to 35 lower-division semester credit hours (31 without the keyboard course described below) that are fully transferable. Transfer of credit in ensemble, applied study and theory/aural skills shall be on a course-for-course basis.

Academic credit shall be granted on a course-for-course basis in the transfer of theory/aural skills, applied music and ensemble courses and will be accepted at the credit-hour level of the receiving institution. Full academic credit shall be granted on the basis of comparable courses completed, not on specific numbers of semester credit hours accrued.

In addition to the course work listed above, the maximum recommended transfer credit from the general education core curriculum is 42 semester credit hours. Students shall complete the general education core curriculum in effect at the institution of higher education that grants the baccalaureate degree.

Keyboard (Piano) Competency

Because keyboard (piano) competency is a requirement for most baccalaureate degrees in music, up to four additional semester credit hours of course work pertaining to keyboard (piano) may transfer by agreement between institutions. Keyboard competency courses approved for transfer are courses in group piano or applied lessons that concentrate specifically on skills development for passing keyboard proficiency examinations. Keyboard courses that concentrate primarily on performance literature are not considered to be keyboard competency courses for the purposes of this field of study. Completion of courses leading to keyboard proficiency does not necessarily satisfy the established proficiency requirement at a receiving institution.

Competency, Proficiency and Diagnostic Assessment in Music

Transferring students who have completed the field of study curriculum must satisfy the competency and proficiency requirements of the receiving institution. Transferring students shall not be required to repeat courses transferred as part of the field of study curriculum. However, diagnostic assessment of transfer students is permissible if the receiving institution routinely conducts diagnostic assessment of native students at the same point in the program of study.

Courses for Specific Degree Programs in Music

Completion of the field of study curriculum shall not prevent a receiving institution from requiring additional lower-division courses that may be necessary for specific degree programs. Courses selected for inclusion in the field of study curriculum are those considered to be common to lower-division study for most music degrees. Receiving institutions may require transfer students in specialized programs (e.g., jazz studies, performance, composition, music therapy, etc.) to take additional degree-specific lower-division courses that are not included in the field of study curriculum.

Technical Degrees and Certificates

Students may begin with an Associate of Applied Science (A.A.S.) or they may pursue a career pathway in increments, beginning with a marketable skills achievement award and proceed through levels of certificates of technology. Some technical programs provide education beyond the A.A.S. degree.

All A.A.S. degree plans include one or more courses designed to meet each the Department of Labor Secretary’s Commission on Achieving Necessary Skills (SCANS) requirements. Students successfully complete the curricula requirements of a technical program have passed courses which demonstrate competency in the basic use of computers.

Completion of the semester credit hours for a marketable skills achievement award and or an occupational certificate does not qualify students to participate in the commencement ceremony. For information, see Graduation.

 Marketable Skills Achievement Award

A marketable skills achievement award is awarded to students who complete 9-14 semester credit hours in a particular technical field of study.

Occupational Certificate

The occupational certificate is awarded to students who satisfactorily complete the required technical courses in a 15-23 semester credit hour program, including credit-by-exam or credit-by-certification.

Certificate of Technology

The certificate of technology is awarded to students who complete the required sequence of technical courses in a 24-42 semester credit hour program.

Career Foundation Core

A Career Foundation Core (CFC) Certificate is a level I certificate developed through the Texas Higher Education Coordinating Board. This certificate is based upon the identification of a sequence of Workforce Education Course Manual (WECM) courses and learning outcomes
that represent a career foundation core within a specific career cluster. A CFC certificate, consisting of at least 24 and no more than 42 semester credit hours, is intended to maximize an individual student’s opportunity for immediate job placement with options to pursue the program’s associate degree or to transfer to another higher education institution or technical college. This certificate also allows a student to pursue a second year in a specific career pathway.

Level II Certificate of Technology

A level two certificate consists of at least 43-59 semester credit hours. Students in all level two certificates shall be subject to the requirements of the TSI.

The level two certificate of technology is awarded to students who complete the required sequence of technical courses in a 43-59 semester credit hour program.

Associate of Applied Science Degree

An A.A.S. degree is awarded to students who complete the technical curricula requirements as outlined in the Technical Programs section of the Catalog, including 15 semester credit hours of general education courses.

Enhanced Skills Certificate

The Enhanced Skills Certificate is considered to be a continuation of the associate of applied science degree program. Therefore, in order to qualify for the Enhanced Skills Certificate, the student must complete all of the A.A.S. requirements for the degree as well as the additional 6-15 semester credit hours required for the certificate. A course for which credit has been earned may not fulfill a requirement for both the degree and certificate. Each course earned can fulfill only one course requirement in the continuum of courses required, and no single course will count for both degree and certificate purposes. For courses which may be repeated multiple times for credit, the course may be utilized, as appropriate, as many times as credit was earned. Substitution for specified courses required in the enhanced skills certificate is not allowed.

Advanced Technical Certificate

An advanced technical certificate is a certificate that has a defined associate or baccalaureate degree as a prerequisite, consisting of at least 16 and no more than 50 semester credit hours. It is focused and clearly related to the prerequisite degree, and meets industry or external agency requirements. An advanced technical certificate is attached to an A.A.S. degree in the same program area as the A.A.S. degree. An A.A.S. degree program provides a shortened track for students who already hold a related degree.

Continuing and Professional Development Certificate Programs

A Continuing and Professional Development (CPD) certificate program is a grouping of related Continuing and Professional Development courses which, when successfully completed, provide a level of technical and occupational skills acceptable by the industry standard for that field. A Continuing Education Unit Certificate (CEU) is 360-779 contact hours and has a coherent sequence of technical CEU courses.

Graduation

Catalog Selection for Graduation

A student becomes eligible to graduate by completing the degree and/or certificate requirements as set forth in the San Jacinto Community College District Catalog. These graduation requirements change periodically to meet the various needs of transfer universities, business and industry (employers), and/or cancellation of courses and programs. The guidelines listed below have been established to assist students in identifying the specific requirements which apply to their chosen programs of study.

San Jacinto College expects that a student will normally graduate under the catalog in effect at the time of the most recent admission. For nursing and other specialized programs, the term of acceptance into the program determines the catalog year. When the elapsed time from initial enrollment to program completion is extended, individual courses may have been replaced or canceled. Counselors or education planners will assist students in the selection of appropriate courses. Students may consult the new catalog each year to confirm whether their chosen programs have been revised or will be replaced or if a new program has been introduced which may be more appropriate for meeting their education objectives.

Students may request graduation under the program requirements of any catalog year in which they were enrolled in at least one term as long as the program remains approved by the Texas Higher Education Coordinating Board. Students should consider the number of unmet courses remaining to be completed in selecting a catalog.

Note: The catalog year selection for degrees awarded through the reverse articulation process is defined as any catalog during which the student was enrolled for at least one semester including San Jacinto College and the transfer institution.
Campus Selection for Graduation

Students may choose to graduate from the campus of their choice provided they meet the following requirements:

1. The student has completed course work at the campus chosen.
2. The campus offers the program in which the degree or certificate is sought.

Students who have not completed all course requirements, but have completed the residency requirements for a degree from San Jacinto College, may fulfill their course requirements at another regionally accredited institution and transfer the credits to San Jacinto College. The applicable catalog for graduation will be in accordance with the provisions listed above.

Students whose technical program has been discontinued by the College will be provided an opportunity to graduate under a catalog in accordance with the above provisions provided their graduation dates are within the time period in which the College is authorized by the State of Texas to award the degree. Students whose technical programs are discontinued on one campus, but are continued on another campus, are expected to complete their programs on the other campus or they may attempt to earn other degrees.

Graduation Requirements for All Academic and Technical Awards

(Degrees/Certificates)

Associate of Arts Degree (AA), Associate of Arts in Teaching Degree (AAT), Associate of Science Degree (AS), Associate of Science in Engineering Science (ASES), and Field of Study (FOS)

Associate of Applied Science Degree (AAS), Certificate of Technology (Level II), Certificate of Technology (Level I), Occupational Certificate (Certificate of Technology Level I), Marketable Skills Achievement Award (MSA), *Enhanced Skills Certificate (Level III) and *Advanced Technical Certificate (Level IV).

San Jacinto College confers the awards above upon students who meet the general requirements for graduation as listed below:

- Meet high school graduation requirement for unconditional admission (must be a high school graduate or the equivalent)
- Meet the completion of 25 percent of the award requirements in residence at San Jacinto College. Residence hours include the college-level courses taken at San Jacinto College that are required and applied to the award. It also includes internal credit-by-exam and credit-by-certification courses taken at San Jacinto College and applied to the award. Courses in the following areas that may appear on the award check are not included in the calculation of the 25 percent residence hours including Electives, Attempted: Withdrawn, Not Passed, or Retaken, or Attempted, Not Counted.
- Meet the minimum final award grade point average (GPA) of 2.0 (C average) which includes all courses used in the award as identified above. Courses in the following areas that may appear on the award check are not included in the calculation of the award GPA requirement including Electives, Attempted: Withdrawn, Not Passed, or Retaken, or Attempted, Not Counted.
- Make formal application for graduation at the enrollment services office. (See Academic Calendar for deadline dates.)

*Requires additional requirements. See Catalog area.

Additional Associate Degrees
(Second Degrees)

Students who have completed a degree at San Jacinto College should obtain academic advising before enrolling in another associate’s degree. With the following stipulations, students may obtain additional associate’s degrees.

Students who have completed a degree at San Jacinto College should obtain academic advising before enrolling in another associate’s degree. With the following stipulations, students may obtain additional associate’s degrees.

- A student who has received an A.A. may obtain an A.S. or an A.S.E.S., but not another A.A. or A.A.T. degree, by completing a minimum of 12 applicable hours that did not apply to the previous degree.
- A student who has received an A.S. or an A.S.E.S. may obtain an A.A. or A.A.T. but not two A.S. degrees, by completing a minimum of 12 applicable hours that did not apply to the previous degree.
- A student who has received an A.A.T. may obtain an A.S. or an A.S.E.S., but not another A.A.T. or A.A. degree, by completing a minimum of 12 applicable hours that did not apply to the previous degree.
- A student who has received an A.A.S. may obtain an A.A. or A.A.T., or A.S. or an A.S.E.S. by completing all degree requirements.
• A student who has received an A.A.S may obtain an additional A.A.S. in a different six-digit CIP (Classification of Instructional Programs), by completing all degree requirements.

• Students who have received an A.A., A.S., A.S.E.S. or A.A.T degree may obtain an A.A.S. degree by completing the required technical courses in the program.

Awarding of Degrees and Certificates

Upon completion of degree and/or certificate requirements, the student must apply for graduation for the credential(s) to be awarded. There is no fee to apply for graduation. Participation in commencement is not a requirement for graduation. Students apply to participate in commencement separately.

1. Degree Evaluation: The student first completes a Degree Evaluation online using SOS and selecting MySanJacGPS or CAPP. Confirm that all requirements for the degree or certificate are completed or in progress. Print a copy and bring it to the Educational Planning and Counseling or Enrollment Services offices by the application deadline date. Submit a Request for Final Graduation Verification with attached Degree Evaluation to the campus Enrollment Services office.

2. Application for Degree or Certificate: The enrollment services office will verify eligibility for graduation.

3. Transcripts: Following the end-of-term posting of grades, the Enrollment Services office verifies that all requirements in progress have been completed and posts the degrees to the student’s records. Transcripts may be requested by the student approximately two weeks after the posting of final grades for the term.

4. Diplomas: Diplomas are normally available for pick-up in the Enrollment Services office about three weeks following the posting of final grades for the term.

5. Reverse articulation: Students who have not completed all course requirements, but have completed the residency requirements for a degree from San Jacinto College (i.e., 16 SCH), may fulfill their course requirements at another regionally accredited institution with which San Jacinto College has an agreement and transfer the credits to San Jacinto College. The applicable catalog for graduation will be in accordance with the provisions listed above.

Review for Academic Associate Degree Completion for Students Completing the State-mandated Core Curriculum

Each academic year the Texas Higher Education Coordinating Board requires San Jacinto College to report the students who have completed the state-mandated Core Curriculum which is approximately two-thirds of the hours required for an associate degree. When these students are reported as completing the Core Curriculum, they will then be reviewed by San Jacinto College to determine if they have also completed all the requirements for an associate degree. If all degree requirements are met, the students will be awarded an Associate of Arts degree in General Studies and the degree posted to the official transcript. The students will be notified via the last known email address that the degree has been awarded. The students are eligible to attend the next planned commencement ceremony, and they will receive a graduation diploma.

Awarding San Jacinto College Associate Degrees via Reverse Transfer/Articulation

San Jacinto College participates in the reverse transfer/articulation process with several universities in Texas. This process allows the university to identify transfer students who have completed a minimum of 16 college-level hours in residence at San Jacinto College and send official transcripts showing the course-work completed at the university. San Jacinto College evaluates the transfer work and runs a degree compliance to review the student’s record to determine whether the student has met the requirements to be awarded an associate degree. If so, the Associate of Arts in General Studies degree will be awarded and posted to the official transcript. The students will be notified via the last known email address that the degree has been awarded.

Commencement

Students may express their desire to participate in commencement when they submit the Request for Final Graduation Verification form.

Cap and gown for commencement are ordered through the campus bookstore. Honors program graduates, graduates from special programs, and members of Phi Theta Kappa should speak to the program educational planner/counselor regarding specialty regalia for graduation.
San Jacinto Community College District

Technical Programs
<table>
<thead>
<tr>
<th>Major Codes</th>
<th>Technical Programs</th>
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<tbody>
<tr>
<td>5ACNT</td>
<td>Accounting Level 2 Certificate</td>
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<tr>
<td>3ACNT</td>
<td>Accounting A.A.S.</td>
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<tr>
<td>5AERO-PDP</td>
<td>Pilot Development Program Level 2 Certificate</td>
</tr>
<tr>
<td>3AERO-MGT</td>
<td>Aeronautical Technology-Aviation Management A.A.S.</td>
</tr>
<tr>
<td>3AERO-PDP</td>
<td>Aeronautical Technology-Pilot Development Program A.A.S.</td>
</tr>
<tr>
<td>6AIRC</td>
<td>Air Conditioning Occupational Certificate</td>
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<tr>
<td>4AIRC</td>
<td>Air Conditioning Certificate of Technology</td>
</tr>
<tr>
<td>4AIRC-CI</td>
<td>Air Conditioning-Commercial &amp; Industrial Certificate of Technology</td>
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<tr>
<td>3AIRC</td>
<td>Air Conditioning Technology A.A.S.</td>
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<tr>
<td>6ART-DSN</td>
<td>Art and Design Occupational Certificate</td>
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<tr>
<td>4ART-DSN</td>
<td>Art and Design Certificate of Technology</td>
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<td>3ART-DSN</td>
<td>Art and Design A.A.S.</td>
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<tr>
<td>6ACRT-AST</td>
<td>Automotive Collision Repair Assistant Occupational Certificate</td>
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<tr>
<td>6ACRT-PNT</td>
<td>Automotive Painting Occupational Certificate</td>
</tr>
<tr>
<td>4ABCR-MGT</td>
<td>Automotive Collision Repair Management Specialty Certificate of Technology</td>
</tr>
<tr>
<td>3ABCR-MGT</td>
<td>Automotive Collision Repair Management Specialty A.A.S.</td>
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<tr>
<td>4ABCR-CR</td>
<td>Automotive Collision Repair Technology Certificate of Technology</td>
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<tr>
<td>3ABDR-CR</td>
<td>Automotive Collision Repair Technology A.A.S.</td>
</tr>
<tr>
<td>4ABCR-NC</td>
<td>Automotive Collision Repair Non-Collision Certificate of Technology</td>
</tr>
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<td>5AUTO</td>
<td>Automobile Technology Level 2 Certificate</td>
</tr>
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<td>3AUTO</td>
<td>Automotive Technology A.A.S.</td>
</tr>
<tr>
<td>5AUTO-C</td>
<td>Automotive Technology - Mopar College Automatic Program (CAP) Level II Certificate of Technology</td>
</tr>
<tr>
<td>3AUTO-C</td>
<td>Automotive Technology-Chrysler A.A.S.</td>
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<td>Automotive Technology-Ford Level 2 Certificate</td>
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<td>Automotive Technology-Ford A.A.S.</td>
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<td>Automotive Technology-GM A.A.S.</td>
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<td>EAUTO-H</td>
<td>Honda Professional Automotive Career Training (PACT) Program Enhanced Skills Certificate</td>
</tr>
<tr>
<td>5AUTO-TTEN</td>
<td>Automotive Technology-Toyota Technician Training &amp; Education Network (TTEN) Level 2 Certificate</td>
</tr>
<tr>
<td>3AUTO-TTEN</td>
<td>Automotive Technology-Toyota Technician Training &amp; Education Network (TTEN) A.A.S.</td>
</tr>
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<td>EAUTO-TTEN</td>
<td>Toyota Technician Training &amp; Education Network (TTEN) Program Enhanced Skills Certificate</td>
</tr>
<tr>
<td>6BIOMD-CET</td>
<td>Biomedical Clinical Equipment Technician Occupational Certificate</td>
</tr>
<tr>
<td>4BIOMD-CET</td>
<td>Biomedical Clinical Equipment Technician Certificate of Technology</td>
</tr>
<tr>
<td>5BIOMD-CET</td>
<td>Biomedical Clinical Equipment Technician Level 2 Certificate</td>
</tr>
<tr>
<td>3BIOMD-CET</td>
<td>Biomedical Clinical Equipment Technician A.A.S.</td>
</tr>
<tr>
<td>4BMGT-ENTR</td>
<td>Business Management Entrepreneur Certificate of Technology</td>
</tr>
<tr>
<td>5BMGT-ENTR</td>
<td>Business Management-Entrepreneurship Level 2 Certificate</td>
</tr>
<tr>
<td>3BMGT-ENTR</td>
<td>Business Management Entrepreneur A.A.S.</td>
</tr>
<tr>
<td>MBMGT-MGMT</td>
<td>Business Management-Management Marketable Skills Achievement Award</td>
</tr>
<tr>
<td>6BMGT-MGMT</td>
<td>Business Management-Management Occupational Certificate</td>
</tr>
<tr>
<td>4BMGT-MGMT</td>
<td>Business Management-Management Specialty Certificate of Technology</td>
</tr>
<tr>
<td>5BMGT-MGMT</td>
<td>Business Management Level 2 Certificate</td>
</tr>
<tr>
<td>3BMGT-MGMT</td>
<td>Business Management Associate of Applied Science</td>
</tr>
<tr>
<td>6BMGT-MRKG</td>
<td>Business Management-Foundations of Marketing Occupational Certificate</td>
</tr>
<tr>
<td>MBOTA</td>
<td>Business Office Technology - Office Assistant Marketable Skills Achievement Award</td>
</tr>
<tr>
<td>6BOFT-E</td>
<td>Business Office Technology-Executive Administrative Assistant Occupational Certificate</td>
</tr>
<tr>
<td>4BOFT-E</td>
<td>Business Office Technology-Executive Administrative Assistant Certificate of Technology</td>
</tr>
<tr>
<td>5BOFT-E</td>
<td>Business Office Technology-Executive Administrative Assistant Level 2 Certificate</td>
</tr>
<tr>
<td>3BOFT-EXE</td>
<td>Business Office Technology-Executive Administrative Assistant A.A.S.</td>
</tr>
<tr>
<td>EBOTM</td>
<td>Business Office Technology Medical Office Support Enhanced Skills Certificate</td>
</tr>
<tr>
<td>3CHID-ECE</td>
<td>Child Development/Early Child Education Associate of Applied Science</td>
</tr>
<tr>
<td>4CHID-ECE</td>
<td>Child Development/Early Child Education Certificate of Technology</td>
</tr>
<tr>
<td>4CHID-TA</td>
<td>Child Development Teacher Aide Certificate of Technology</td>
</tr>
<tr>
<td>6CHID-ADM</td>
<td>Child Development Child Care Administrator's Credential Occupational Certificate</td>
</tr>
<tr>
<td>6CHID-DIR</td>
<td>Child Development Association Training for Director Occupational Certificate</td>
</tr>
<tr>
<td>MCHID</td>
<td>Child Development Associate Training Marketable Skills Achievement Award</td>
</tr>
<tr>
<td>6IT-CORE</td>
<td>Computer Information Technology-Core Information Technology Occupational Certificate</td>
</tr>
<tr>
<td>6IT-FNDLS</td>
<td>Computer Information Technology-Fundamentals Occupational Certificate</td>
</tr>
<tr>
<td>6IT-BC</td>
<td>Computer Information Technology-Begin Network CISCO Occupational Certificate</td>
</tr>
<tr>
<td>6IT-AITS</td>
<td>Computer Information Technology-Advanced Information Technology Security Occupational Certificate</td>
</tr>
<tr>
<td>Major Codes</td>
<td>Technical Programs</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>6IT-CHC</td>
<td>Computer Information Technology-Computer Hardware Support Occupational Certificate</td>
</tr>
<tr>
<td>4IT-APPL</td>
<td>Computer Information Technology-Applications Program Certificate of Technology</td>
</tr>
<tr>
<td>3IT-APPL</td>
<td>Computer Information Technology-Applications Program A.A.S.</td>
</tr>
<tr>
<td>4IT-DSMN</td>
<td>Computer Information Technology-Desktop Support and Microsoft Network Administration Specialty Certificate of Technology</td>
</tr>
<tr>
<td>3IT-DSMN</td>
<td>Computer Information Technology-Desktop Support and Microsoft Network Administration Specialty A.A.S.</td>
</tr>
<tr>
<td>4IT-ITS</td>
<td>Computer Information Technology-Information Technology Security Certificate of Technology</td>
</tr>
<tr>
<td>3IT-ITS</td>
<td>Computer Information Technology-Information Technology Security A.A.S.</td>
</tr>
<tr>
<td>6IT-GAME</td>
<td>Computer Information Technology-Introduction Game Design and Development Occupational Certificate</td>
</tr>
<tr>
<td>4IT-GAMS</td>
<td>Computer Information Technology-Simulation &amp; Game Design Certificate of Technology</td>
</tr>
<tr>
<td>5IT-GAMS</td>
<td>Computer Information Technology-Advanced Simulation &amp; Game Design Level 2 Certificate</td>
</tr>
<tr>
<td>4IT-NW-C</td>
<td>Computer Information Technology-Network Administrative-CISCO Certificate of Technology</td>
</tr>
<tr>
<td>5IT-ANW</td>
<td>Computer Information Technology-Advanced Networking Level 2 Certificate</td>
</tr>
<tr>
<td>3IT-NW-C</td>
<td>Computer Information Technology-Network Administrative-CISCO A.A.S.</td>
</tr>
<tr>
<td>4IT-WBDI</td>
<td>Computer Information Technology-Web Design/Implementation Certificate of Technology</td>
</tr>
<tr>
<td>4IT-WBDV</td>
<td>Computer Information Technology-Web Application Development Certificate of Technology</td>
</tr>
<tr>
<td>3IT-WBDV</td>
<td>Computer Information Technology-Web Application Development A.A.S.</td>
</tr>
<tr>
<td>AIT-EMGRN</td>
<td>Computer Information Technology-Emerging Networking Technologies Advanced Technical Certificate</td>
</tr>
<tr>
<td>EIT-CMPVIR</td>
<td>Computer Information Technology-Computer Virtualization Enhanced Skills Certificate</td>
</tr>
<tr>
<td>4CSTR-MGMT</td>
<td>Construction Management Technology Certificate of Technology</td>
</tr>
<tr>
<td>3CSTR-MGMT</td>
<td>Construction Management Technology A.A.S.</td>
</tr>
<tr>
<td>MCOSM-ELE</td>
<td>Cosmetology Eyelash Extension Marketable Skills Achievement Award</td>
</tr>
<tr>
<td>MCOSM-HWV</td>
<td>Cosmetology Hairweaving Marketable Skills Achievement Award</td>
</tr>
<tr>
<td>6COSM-NAI</td>
<td>Cosmetology Nail Technician Occupational Certificate</td>
</tr>
<tr>
<td>4COSM-FAC</td>
<td>Cosmetology Facial Certificate of Technology</td>
</tr>
<tr>
<td>4COSM-OPHS</td>
<td>Cosmetology High School Operator Dual Credit Certificate of Technology</td>
</tr>
<tr>
<td>4COSM-OP</td>
<td>Cosmetology Operator Certificate of Technology</td>
</tr>
<tr>
<td>3COSM-OP</td>
<td>Cosmetology Operator A.A.S.</td>
</tr>
<tr>
<td>6COSM-INST</td>
<td>Cosmetology Instructor Occupational Certificate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Codes</th>
<th>Technical Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>4COSM-INST</td>
<td>Cosmetology Instructor Certificate of Technology</td>
</tr>
<tr>
<td>3COSM-INST</td>
<td>Cosmetology Instructor A.A.S.</td>
</tr>
<tr>
<td>6CRU-CORE</td>
<td>Criminal Justice Core Occupational Certificate</td>
</tr>
<tr>
<td>4CRU</td>
<td>Criminal Justice Certificate of Technology</td>
</tr>
<tr>
<td>5CRU</td>
<td>Criminal Justice Level 2 Certificate of Technology</td>
</tr>
<tr>
<td>3CRU</td>
<td>Criminal Justice A.A.S.</td>
</tr>
<tr>
<td>4CULA</td>
<td>Culinary Arts Certificate of Technology</td>
</tr>
<tr>
<td>3CULA</td>
<td>Culinary Arts A.A.S.</td>
</tr>
<tr>
<td>MCULA-C</td>
<td>Culinary Arts-Chef Training Marketable Skills Achievement Award</td>
</tr>
<tr>
<td>6CULA-C</td>
<td>Culinary Arts-Chef Training Occupational Certificate</td>
</tr>
<tr>
<td>4CULA-C</td>
<td>Culinary Arts-Chef Training Certificate of Technology</td>
</tr>
<tr>
<td>5CULA-C</td>
<td>Culinary Arts-Chef Training Level 2 Certificate</td>
</tr>
<tr>
<td>3CULA-C</td>
<td>Culinary Arts-Chef Training A.A.S.</td>
</tr>
<tr>
<td>4CULA-HCUI</td>
<td>Culinary Arts-Healthy Cuisine Certificate of Technology</td>
</tr>
<tr>
<td>MCULA-P</td>
<td>Culinary Arts Pastry/Garde Manager Marketable Skills Achievement Award</td>
</tr>
<tr>
<td>4CULA-PC</td>
<td>Culinary Arts-Pastry Chef Specialty Certificate of Technology</td>
</tr>
<tr>
<td>3CULA-PC</td>
<td>Culinary Arts-Pastry Chef Specialty A.A.S.</td>
</tr>
<tr>
<td>MCULA-RSTR</td>
<td>Culinary Arts-Restaurant Management Marketable Skills Achievement Award</td>
</tr>
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<td>6CULA-RSTR</td>
<td>Culinary Arts-Restaurant Management Occupational Certificate</td>
</tr>
<tr>
<td>4CULA-RSTR</td>
<td>Culinary Arts-Restaurant Management Certificate of Technology</td>
</tr>
<tr>
<td>5CULA-RSTR</td>
<td>Culinary Arts-Restaurant Management Level 2 Certificate</td>
</tr>
<tr>
<td>3CULA-RSTR</td>
<td>Culinary Arts-Restaurant Management A.A.S.</td>
</tr>
<tr>
<td>5DENT</td>
<td>Dental Assisting Level 2 Certificate</td>
</tr>
<tr>
<td>4DEMR-TRNE</td>
<td>Diesel Trainee Certificate of Technology</td>
</tr>
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<td>4DEMR</td>
<td>Diesel Technology Certificate of Technology</td>
</tr>
<tr>
<td>3DEMR</td>
<td>Diesel Technology A.A.S.</td>
</tr>
<tr>
<td>MDIET</td>
<td>Dietetics-Dietary Manager Marketable Skills Achievement Award</td>
</tr>
<tr>
<td>6DIET-SFSV</td>
<td>Dietetics-School Food Service Specialty Occupational Certificate</td>
</tr>
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<td>4DIET-FSVC</td>
<td>Dietetics-Food Service Management Certificate of Technology</td>
</tr>
<tr>
<td>6ELEC-TEC</td>
<td>Electrical Technology Occupational Certificate</td>
</tr>
<tr>
<td>4ELEC-TEC</td>
<td>Electrical Technology Certificate of Technology</td>
</tr>
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<td>5ELEC-TEC</td>
<td>Electrical Technology Level 2 Certificate</td>
</tr>
<tr>
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<td>Electrical Technology A.A.S.</td>
</tr>
<tr>
<td>EELEC</td>
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</tr>
<tr>
<td>EELEC-CAE</td>
<td>Electrical Technology Communication and Alternative Energy Enhanced Skills Certificate</td>
</tr>
<tr>
<td>Major Codes</td>
<td>Technical Programs</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------------------------------------------------</td>
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<td>6ELCTRN-COMM</td>
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</tr>
<tr>
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<td>Electronics Technology Certificate of Technology</td>
</tr>
<tr>
<td>5ELEC</td>
<td>Electronics Technology Level 2 Certificate</td>
</tr>
<tr>
<td>3ELECTRON</td>
<td>Electronics Technology A.A.S.</td>
</tr>
<tr>
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<td>Emergency Medical Technology Level 2 Certificate</td>
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<tr>
<td>3EMT</td>
<td>Emergency Medical Technology A.A.S.</td>
</tr>
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<td>4DFT-A</td>
<td>Engineering Design Graphics-Architectural/Civil/Structural Certificate of Technology</td>
</tr>
<tr>
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<td>Engineering Design Graphics-Architectural/Civil/Structural Specialty Level 2 Certificate</td>
</tr>
<tr>
<td>3DFT-A</td>
<td>Engineering Design Graphics-Architectural/Civil/Structural Specialty A.A.S.</td>
</tr>
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<td>4DFT-M</td>
<td>Engineering Design Graphics-Mechanical Specialty Certificate of Technology</td>
</tr>
<tr>
<td>5DFT-M</td>
<td>Engineering Design Graphics Mechanical Specialty Level 2 Certificate</td>
</tr>
<tr>
<td>3DFT-M</td>
<td>Engineering Design Graphics-Mechanical Specialty A.A.S.</td>
</tr>
<tr>
<td>4DFT-PI</td>
<td>Engineering Design Graphics-Petro/Industrial Specialty Certificate of Technology</td>
</tr>
<tr>
<td>5DFT-PI</td>
<td>Engineering Design Graphics-Petro/Industrial Specialty Level 2 Certificate</td>
</tr>
<tr>
<td>3DFT-PI</td>
<td>Engineering Design Graphics-Petro/Industrial Specialty A.A.S.</td>
</tr>
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<td>5ENVR-HLTH</td>
<td>Environmental Health and Safety Technology Level 2 Certificate</td>
</tr>
<tr>
<td>3ENVR-HLTH</td>
<td>Environmental Health and Safety Technology A.A.S.</td>
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<td>6EYE-PREP</td>
<td>Optician Preparatory Occupational Certificate</td>
</tr>
<tr>
<td>4EYE</td>
<td>Eye Care Technology Certificate of Technology</td>
</tr>
<tr>
<td>3EYE</td>
<td>Eye Care Technology A.A.S.</td>
</tr>
<tr>
<td>4FIREFTG</td>
<td>Fire Protection Technology Certificate of Technology</td>
</tr>
<tr>
<td>5FIRE-EMT</td>
<td>Firefighter - EMT Level 2 Certificate</td>
</tr>
<tr>
<td>3FIRE-PROT</td>
<td>Fire Protection Technology-Firefighting A.A.S.</td>
</tr>
<tr>
<td>4FIRE-CHOF</td>
<td>Chief Officer Enhanced Skills Certificate</td>
</tr>
<tr>
<td>4HITT-MDBC</td>
<td>Health Information Management-Medical Bill/Coding Certificate of Technology</td>
</tr>
<tr>
<td>5HITT-MDC</td>
<td>Health Information Management-Medical Coding Level 2 Certificate</td>
</tr>
<tr>
<td>3HITT-INF</td>
<td>Health Information Management A.A.S.</td>
</tr>
<tr>
<td>3HITT-CAN</td>
<td>Health Information Management-Cancer Data Management Specialty A.A.S.</td>
</tr>
<tr>
<td>AHITT-CAN</td>
<td>Health Information Management-Cancer Data Management Advanced Technical Certificate</td>
</tr>
<tr>
<td>3HSC-LVN</td>
<td>Health Science A.A.S. Vocational Nursing Pathway</td>
</tr>
<tr>
<td>3HSC-MDAST</td>
<td>Health Science A.A.S. Medical Assisting Pathway</td>
</tr>
<tr>
<td>3HSC-PHAR</td>
<td>Health Science A.A.S. Pharmacy Technician Pathway</td>
</tr>
<tr>
<td>MINST</td>
<td>Instrumentation Analyzer Marketable Skills Achievement Award</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Codes</th>
<th>Technical Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>6INST-ANLY</td>
<td>Instrumentation Analytical Occupational Certificate</td>
</tr>
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<td>Instrumentation Level 2 Certificate</td>
</tr>
<tr>
<td>3INST</td>
<td>Instrumentation Technology A.A.S.</td>
</tr>
<tr>
<td>EINST</td>
<td>Instrumentation Technology Enhanced Skills Certificate</td>
</tr>
<tr>
<td>MINTD</td>
<td>Interior Decorator Marketable Skills Achievement Award</td>
</tr>
<tr>
<td>6INT-DDII</td>
<td>Interior Design-Decorator II Occupational Certificate</td>
</tr>
<tr>
<td>5INTD-DSGN</td>
<td>Interior Design Pre-Professional Level 2 Certificate</td>
</tr>
<tr>
<td>3INT-DSGN</td>
<td>Interior Design A.A.S.</td>
</tr>
<tr>
<td>EINT-DSGN</td>
<td>Interior Design Enhanced Skills Certificate</td>
</tr>
<tr>
<td>MINTL-LOG</td>
<td>International Business and Logistics Marketable Skills Achievement Award</td>
</tr>
<tr>
<td>6INTL-LOG</td>
<td>International Business and Logistics Occupational Certificate</td>
</tr>
<tr>
<td>4INTL-LOG</td>
<td>International Business and Logistics Certificate of Technology</td>
</tr>
<tr>
<td>3INTL-LOG</td>
<td>International Business and Logistics A.A.S.</td>
</tr>
<tr>
<td>6INTL-MAR</td>
<td>International Business and Logistics Maritime Occupational Certificate</td>
</tr>
<tr>
<td>4INTL-MAR</td>
<td>International Business and Logistics Maritime Certificate of Technology</td>
</tr>
<tr>
<td>3INTL-MAR</td>
<td>International Business and Logistics Maritime A.A.S.</td>
</tr>
<tr>
<td>ALTRM-CARE</td>
<td>Long-Term Care Administration Advanced Technical Certificate</td>
</tr>
<tr>
<td>6MAR-CI</td>
<td>Maritime Career Interest Occupational Certificate</td>
</tr>
<tr>
<td>3MARITIME</td>
<td>Maritime Transportation A.A.S.</td>
</tr>
<tr>
<td>6MASG-THPY</td>
<td>Massage Therapy Occupational Certificate</td>
</tr>
<tr>
<td>4MED-ASST</td>
<td>Medical Assisting Certificate of Technology</td>
</tr>
<tr>
<td>3MED-RAD</td>
<td>Medical Imaging-Medical Radiography A.A.S.</td>
</tr>
<tr>
<td>3MED-SONO</td>
<td>Medical Imaging-Diagnostic Medical Sonography A.A.S.</td>
</tr>
<tr>
<td>AMRAD-MRI</td>
<td>Magnetic Resonance Imaging Advanced Technical Certificate</td>
</tr>
<tr>
<td>EMRAD-CT</td>
<td>Medical Imaging-Computed Tomography (CT) Enhanced Skills Certificate</td>
</tr>
<tr>
<td>EMRAD-MAMM</td>
<td>Medical Imaging-Mammography Enhanced Skills Certificate</td>
</tr>
<tr>
<td>3MED-LABT</td>
<td>Medical Laboratory Technology A.A.S.</td>
</tr>
<tr>
<td>6MH-SAC</td>
<td>Mental Health Substance Abuse Counseling Occupational Certificate</td>
</tr>
<tr>
<td>3MED-PSYC</td>
<td>Mental Health Clinical and Counseling Psychology A.A.S.</td>
</tr>
<tr>
<td>6MUS-SOUND</td>
<td>Music-Sound Recording Occupational Certificate</td>
</tr>
<tr>
<td>4MUS-BRCST</td>
<td>Music-Audio Broadcast Certificate of Technology</td>
</tr>
<tr>
<td>Major Codes</td>
<td>Technical Programs</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>4MUS-AUDI</td>
<td>Music-Techniques-Audio Engineering Certificate of Technology</td>
</tr>
<tr>
<td>3MUS-RCRD</td>
<td>Music Recording A.A.S.</td>
</tr>
<tr>
<td>MWLD-NDT</td>
<td>Non-Destructive Testing Technology Marketable skills Achievement Award</td>
</tr>
<tr>
<td>6WLD-QAT</td>
<td>Non-Destructive Testing Technology-Quality Assurance Technology Occupational Certificate</td>
</tr>
<tr>
<td>4WLD-NDT</td>
<td>Non-Destructive Testing Certificate of Technology</td>
</tr>
<tr>
<td>5WLD-NDT</td>
<td>Non-Destructive Testing Technology Level 2 Certificate</td>
</tr>
<tr>
<td>3WLD-NDT</td>
<td>Non-Destructive Testing Technology A.A.S.</td>
</tr>
<tr>
<td>EWLD-NDT</td>
<td>Non-Destructive Testing Technology Enhanced Skills Certificate</td>
</tr>
<tr>
<td>5NUR-LVN</td>
<td>Vocational Nursing Level 2 Certificate</td>
</tr>
<tr>
<td>3NUR-ADN</td>
<td>Nursing RN Associate of Applied Science</td>
</tr>
<tr>
<td>3NUR-LNTRN</td>
<td>LVN/Paramedic to RN Transition Nursing A.A.S.</td>
</tr>
<tr>
<td>3NUR-PMTNRN</td>
<td>LVN/Paramedic to RN Transition Nursing A.A.S.</td>
</tr>
<tr>
<td>3PARA-LGL</td>
<td>Paralegal A.A.S.</td>
</tr>
<tr>
<td>4PHAR</td>
<td>Pharmacy Technician Certificate of Technology</td>
</tr>
<tr>
<td>4PHED-PT</td>
<td>Physical Education-Personal Trainer Certificate of Technology</td>
</tr>
<tr>
<td>3PH-THRPY</td>
<td>Physical Therapy Assistant A.A.S.</td>
</tr>
<tr>
<td>MPIPEFIT</td>
<td>Pipefitting/Fabricator Marketable Skills Achievement Award</td>
</tr>
<tr>
<td>5PROT</td>
<td>Process Technology Level 2 Certificate</td>
</tr>
<tr>
<td>3PROT</td>
<td>Process Technology A.A.S.</td>
</tr>
<tr>
<td>EPROT-CT</td>
<td>Process Technology Chemical Technician Enhanced Skills Certificate</td>
</tr>
<tr>
<td>EPROT-PT</td>
<td>Process Technology Power Technician Enhanced Skills Certificate</td>
</tr>
<tr>
<td>6REAL</td>
<td>Real Estate Occupational Certificate</td>
</tr>
<tr>
<td>4REAL</td>
<td>Real Estate Certificate of Technology</td>
</tr>
<tr>
<td>5REAL</td>
<td>Real Estate Advanced Level 2 Certificate</td>
</tr>
<tr>
<td>3REAL</td>
<td>Real Estate A.A.S.</td>
</tr>
<tr>
<td>3RESP</td>
<td>Respiratory Care A.A.S.</td>
</tr>
<tr>
<td>4SURT</td>
<td>Surgical Technology Certificate of Technology</td>
</tr>
<tr>
<td>3SURT</td>
<td>Surgical Technology A.A.S.</td>
</tr>
<tr>
<td>6WLD-ART</td>
<td>Welding-Art Welding Occupational Certificate</td>
</tr>
<tr>
<td>6WLD-STI</td>
<td>Welding-Stick Pipe Occupational Certificate</td>
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<td>6WLD-STR</td>
<td>Welding-Structural Welder Occupational Certificate</td>
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<td>4WLD-C</td>
<td>Welding-Combination Welder Certificate of Technology</td>
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<tr>
<td>4WLD-GAS</td>
<td>Welding-Gas Shielded Arc Certificate of Technology</td>
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<tr>
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<tr>
<td>3WLD</td>
<td>Welding Technology A.A.S.</td>
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<tr>
<td>CE-PIPEFT</td>
<td>Pipefitting Technology</td>
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<td>---</td>
<td>Plumbing and Pipefitting Technology</td>
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<td>---</td>
<td>Truck Driving (Commercial)</td>
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<td>CE-WLDG</td>
<td>Combination Welding</td>
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<tr>
<td>CE-WLDSM</td>
<td>Sheet Metal Welder</td>
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</table>
TECHNICAL PROGRAMS

Accounting

The accounting associate of applied science is an accelerated two-year accounting program for people preparing for immediate careers in accounting. Students pursuing a bachelor's degree in accounting should refer to the information about the associate of arts degree in the Transfer Programs section and see a counselor prior to registration.

Accounting (5ACNT)

Level 2 Certificate
Central and North Campuses
The Accounting Level 2 Certificate provides specialized accounting courses in addition to those required for the Certificate of Technology in Accounting to prepare students for entry into an accounting career.

All of the courses required for this Accounting Level 2 Certificate also apply toward the Associate of Applied Science Degree in Accounting.

First Term
ACCT 2301 Principles of Financial Accounting ................................ 3
ACNT 1331 Federal Income Tax Individual ........................................ 3
BUSI 1301 Business Principles .......................................................... 3
BCIS 1305 Business Computer Applications ...................................... 3
BUSI 2301 Business Law .................................................................. 3
Subtotal .................................................................................................................. 15

Second Term
ACCT 2302 Principles of Managerial Accounting ............................... 3
ACNT 1329 Payroll and Business Tax Accounting ............................... 3
ACNT 1311 Introduction to Computerized Accounting ...................... 3
ENGL 1301 Composition I ................................................................. 3
SPCH 1321 Business and Professional Speech or
SPCH 1315 Public Speaking ................................................................. 3
Subtotal .................................................................................................................. 15

Third Term
ACNT 2303 Intermediate Accounting I .............................................. 3
BUSI 2304 Business Communications ............................................... 3
ACNT 2309 Cost Accounting ................................................................. 3
ACNT 1313 Computerized Accounting ............................................... 3
ACNT 2366 Practicum - Accounting .................................................... 3
Subtotal .................................................................................................................. 15

Fourth Term
*Humanities or Fine Arts ................................................................. 3
*Economics or Psychology or Sociology ........................................... 3
**MATH 1333 Contemporary Mathematics for
Technical Programs or MATH 1314 College Algebra ........... 3
ACNT 2367 Practicum - Accounting ................................................ 3
Subtotal .................................................................................................................. 15

Associate of Applied Science Degree Total ........................................ 60

Verification of workplace competencies;
Capstone Experience: ACNT 2366

Aeronautical Technology
Central Campus
All students must have the approval of the aeronautical department chair before enrolling in flight courses. Fees for flight courses will be in addition to normal College tuition and fees and are subject to contractual and federal aviation regulation changes.

To be eligible for the associate of applied science degrees and certificates, students will complete their flight courses through the College-approved flight contractor for College credit. However, the following exceptions apply:

1. Students who have obtained a private, commercial, instrument, multiengine and/or flight instructor rating may apply for advanced placement testing.
   a. Up to 16 semester hours of credit may be awarded by advanced placement testing.
   b. All flight course requirements must be verified by an aeronautical department examination of the student’s logbook.

The College may withdraw any student from a flight course for the following reasons:
   a. Student’s failure to conform to published FAA regulations.
   b. Student’s failure to conform to the flight contractor’s College-approved course syllabus.
   c. Student’s involvement in one or more FAA reportable accidents or incidents.

The College may, upon the flight contractor’s recommendation, refuse to enroll a student in a subsequent flight course.

A student who is denied enrollment in or is withdrawn from a flight course may appeal this decision by following the sequence specified for grade appeal in the SJC Student Handbook.

Students may enroll in a maximum of two flight courses preregistration period.

Aviation students must maintain a grade point average of at least 2.0 in all aviation courses. Students enrolled in flight courses must earn a grade of C or above in order to progress to the next flight course.

Hazlewood Tuition Exemption (Section 54.203, Education Code)
The following conditions apply to students seeking exemption from payment of flight fees under the provisions of Section 54.203, Education Code:

• Students eligible under the Hazlewood Act may be eligible for a partial Hazlewood exemption if the cost of registration exceeds the amount of V.A. Education Benefits received. (See V.A. Counselor in the Financial Aid Office for details.)

• All flight courses are eligible for the Hazlewood exemption; however, a student may enroll in each flight course only one time under this exemption. Also, a student is limited to two flight courses per term.

Pilot Development Program (5AERO-PDP)
### TECHNICAL PROGRAMS

#### (3AERO-MGT)

**Associate of Applied Science Degree**  
**Central Campus**

The Aviation Management associate of applied science program at San Jacinto College provides a comprehensive education in aviation studies, management, and business principles that prepare students for a career in air transportation, air commerce, airport planning and management, aircraft sales and service, and aviation insurance.

For additional information contact the aeronautical technology program director or department chair.

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<tr>
<th>Term</th>
<th>Credit</th>
<th>Courses</th>
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<tr>
<td><strong>First Term</strong></td>
<td></td>
<td>AVIM 1301 Introduction to Aviation Management .................................. 3</td>
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<tr>
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<td>AIRP 1311 Flight Theory ...................................................................... 3</td>
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<tr>
<td></td>
<td></td>
<td>AIRP 1307 Aviation Meteorology ................................................................ 3</td>
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<td></td>
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<td>ENGL 1301 Composition I ....................................................................... 3</td>
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<td></td>
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<td><strong>Humanities or Fine Arts</strong> .................................................................. 3</td>
</tr>
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<td>15</td>
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</tr>
<tr>
<td><strong>Second Term</strong></td>
<td></td>
<td>AIRP 1301 Air Navigation .................................................................... 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AVIM 2339 Aviation Marketing .................................................................. 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AVIM 1345 Aviation Safety ..................................................................... 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AVIM 2331 Airline Management ................................................................ 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher ............ 3</td>
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<td><strong>Third Term</strong></td>
<td></td>
<td>AIRP 1451 Instrument Ground School .................................................. 4</td>
</tr>
<tr>
<td></td>
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<td>ACCT 2301 Principles of Financial Accounting ........................................ 3</td>
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<td>BUSI 2301 Business Law ......................................................................... 3</td>
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<td>HRPO 2301 Human Resources Management ................................................ 3</td>
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<td>AVIM 2280 Cooperative Education-Aviation/Airway Management and Operations .................................................. 2</td>
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<td>AVIM 2335 Airport Management ................................................................ 3</td>
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<td>AIRP 2333 Aircraft Systems .................................................................... 3</td>
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<td>ENGL 2311 Technical and Business Writing or ENGL 1302 Composition II ........ 3</td>
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<td><strong>Humanities or Fine Arts</strong> .................................................................. 3</td>
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<td><strong>Capstone Experience: AIRP 2335</strong></td>
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</table>

*College Preparatory courses (those courses beginning with 0) do not apply toward the associate degree.

**Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.**

#### Pilot Development Program (3AERO-PDP)

**Associate of Applied Science Degree**  
**Central Campus**

The Pilot Development Program (PDP) at San Jacinto College prepares qualified students to enter the private and commercial aviation industry. The Pilot Development Program is designed to meet the needs of students who plan for a career as a private or commercial pilot. Students have the opportunity to earn Federal Aviation Administration (FAA) certifications for private and commercial pilot, instrument ratings and multiengine ratings.

For additional information contact the aeronautical technology program director or department chair.

<table>
<thead>
<tr>
<th>Term</th>
<th>Credit</th>
<th>Courses</th>
</tr>
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<td><strong>First Term</strong></td>
<td></td>
<td>AIRP 1301 Air Navigation .................................................................... 3</td>
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<td>AIRP 1311 Flight Theory ...................................................................... 3</td>
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<tr>
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<td>AIRP 1307 Aviation Meteorology ................................................................ 3</td>
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<td>AIRP 1215 Private Flight ...................................................................... 2</td>
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<td>ENGL 1301 Composition I ....................................................................... 3</td>
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<td><strong>Second Term</strong></td>
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<td>AIRP 2250 Instrument Flight .................................................................. 2</td>
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<td>AIRP 1341 Advanced Air Navigation ..................................................... 3</td>
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<td>AIRP 1451 Instrument Ground School .................................................... 4</td>
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<tr>
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<td>AIRP 2331 Advanced Meteorology .......................................................... 3</td>
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<td>*MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher ............ 3</td>
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<td>AVIM 1301 Introduction to Aviation Management ........................................ 3</td>
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<td><strong>Third Term</strong></td>
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<td>AIRP 2337 Commercial Ground School .................................................... 3</td>
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<td>AIRP 2239 Commercial Flight .................................................................. 2</td>
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<td>AIRP 1343 Aerodynamics ........................................................................ 3</td>
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<td>AIRP 2333 Aircraft Systems .................................................................... 3</td>
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<td><strong>Fourth Term</strong></td>
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<td>AIRP 2251 Multiengine Flight or AIRP 2236 Certified Flight Instructor - Airplane or AIRP 2242 Flight Instructor - Instrument Airplane or AIP 2243 Flight Instructor - Multiengine Airplane .......... 2</td>
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<td>AIRP 2357 Turbine Aircraft Systems Ground School .................................... 3</td>
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<td>ENGL 2311 Technical and Business Writing ............................................ 3</td>
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</table>
| **Capstone Experience:** Eligible for credentialing examination. Federal Aviation Administration-Private, Commercial and Instrument written and practical examinations.**

**Verification of workplace competencies.**

Capstone Experience: Eligible for credentialing examination. Federal Aviation Administration-Private, Commercial and Instrument written and practical examinations.
Air Conditioning Technology

Air Conditioning Technology (6AIRC)

Occupational Certificate
North and South Campuses
The air conditioning occupational certificate program is designed to provide students with entry-level skills in the field of residential air conditioning and heating. The purpose of this certificate is to provide short-term training in air conditioning.

Students are eligible for the certificate indicated upon completion of the designated courses. All the courses in this certificate also apply toward the certificate of technology and the associate of applied science degree.

First Term Credit
HART 1401 Basic Electricity for HVAC ........................................ 4
HART 1407 Refrigeration Principles ........................................... 4
HART 1441 Residential Air Conditioning ................................... 4
HART 1445 Gas Electrical Heating ........................................... 4
Occupational Certificate Total 16

Capstone Experience: HART 1441

Air Conditioning Technology (4AIRC)

Certificate of Technology
North and South Campuses
The Air Conditioning Certificate of Technology program is designed to provide students with general knowledge required of air conditioning service technicians and/or air conditioning contractors. All courses on this certificate also apply to the associate of applied science degree.

First Term Credit
HART 1401 Basic Electricity for HVAC ........................................ 4
HART 1407 Refrigeration Principles ........................................... 4
HART 1441 Residential Air Conditioning ................................... 4
HART 1445 Gas Electrical Heating ........................................... 4
Subtotal 16

Second Term
HART 2301 Air Conditioning and Refrigeration Codes ............ 3
HART 2431 Advanced Electricity for HVAC ......................... 4
HART 2441 Commercial Air Conditioning ............................... 4
HART 2368 Practicum - Heating, Air Conditioning and Refrigeration Technology/Technician or
HART 1356 EPA Recovery Certification Preparation .......... 3
HVAC/R Level I Approved Elective ................................. 3
Subtotal 17

Certificate of Technology Total 33

Capstone Experience: HART 2301

HVAC/R Level I Approved Electives may be satisfied by:
BUSG 2309 HART 2302 HART 2434 HART 2343
HART 2368 HART 2445 HART 2449
HART 2368 may only be taken one (1) time in this award.

Commercial and Industrial Air Conditioning (4AIRC-CI)

Certificate of Technology
North and South Campuses
First Term Credit
HART 1401 Basic Electricity for HVAC ........................................ 4
HART 1407 Refrigeration Principles ........................................... 4
HART 1441 Residential Air Conditioning ................................... 4
HART 1445 Gas and Electrical Heating .................................... 4
Subtotal 16

Second Term Credit
HART 2368 Practicum (or Field Experience)-Heating, Air Conditioning and Refrigeration Technology/Technician or
HART 2301 Air Conditioning and Refrigeration Codes .... 3
Air Conditioning Approved Elective ................................. 3
Subtotal 17

Certificate of Technology Total 42

Third Term Credit
HART 2302 Commercial A/C System Design ......................... 3
HART 2343 Industrial Air Conditioning ..................................... 3
HART 2334 Advanced Air Conditioning Controls .................. 3
Air Conditioning Approved Elective ................................. 3
Subtotal 12

Capstone Experience: HART 2343

Approved Electives
HART 2301 HART 2345 HART 2368
HART 2436 HART 2442 HART 2449

Air Conditioning Technology (3AIRC)
TECHNICAL PROGRAMS

Associate of Applied Science Degree
North and South Campuses
The Air Conditioning Technology program is designed to provide students with the entry-level skills required for employment as technicians in residential and light commercial air conditioning, refrigeration, and heating.

A graduate of this program will have a good foundation in the principles of air conditioning, refrigeration, and heating, with main emphasis on troubleshooting and service. Related topics of energy conservation, air systems analysis, and air conditioning codes are also thoroughly covered.

First Term
HART 1401 Basic Electricity for HVAC .................................................. 4
HART 1407 Refrigeration Principles .......................................................... 4
HART 1441 Residential Air Conditioning ................................................ 4
HART 1445 Gas Electrical Heating ............................................................ 4
Subtotal 16

Second Term
HART 2301 Air Conditioning and Refrigeration Codes .......................... 3
HART 2431 Advanced Electricity .............................................................. 4
HART 2441 Commercial Air Conditioning ............................................. 4
HART 2368 Practicum - Heating, Air Conditioning & Refrigeration Technology/Technician or HART 1356 EPA Recovery Certification Preparation .... 3
HVAC/R Level I Approved Elective ......................................................... 3
Subtotal 17

Third Term
HART 2436 A/C Troubleshooting ............................................................. 4
HART 2442 Commercial Refrigeration .................................................. 4
HVAC/R Level II Approved Elective ....................................................... 4
Subtotal 12

Fourth Term
ENGL 1301 Composition I ................................................................. 3
*Social and Behavioral Sciences ............................................................. 3
MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher .......................... 3
Speech ...................................................................................................... 3
*Humanities or Fine Arts ..................................................................... 3
Subtotal 15

Associate of Applied Science Degree Total 60

Capstone Experience: HART 2436

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

HVAC/R Level I Approved Electives may be satisfied by:
BUSG 2309 HART 2302 HART 2343 HART 2368
HART 2434 HART 2445 HART 2449
HVAC/R Level II Approved Electives may be satisfied by:
HART 2434 HART 2445 HART 2449
A HVAC/R Level II Approved Elective may NOT be taken twice.

Applied Computer

Electronics Technology
See Electronics Technology

Art and Design

The Art and Design technical curriculum is designed to provide basic preparation for entry-level employment within the greater design industry. The program will develop basic skills across a variety of design concepts and applications, and electives will enable the student to specialize in areas such as design communications, digital media and animation, and photo and video.

Art and Design (6ART-DSN)

Occupational Certificate
South Campus
This occupational certificate is designed to enable students to quickly build a broad foundation of design techniques and applications. All courses required for the Art and Design Occupational Certificate may be used in completing the Art and Design Certificate of Technology and associate of applied science degree.

First Term
IMED 1301 Introduction to Digital Media ............................................. 3
PHTC 1311 Fundamentals of Photography ......................................... 3
ARTS 2348 Digital Art I or ARTC 1325 Introduction to Computer Graphics ................. 3
Subtotal 9

Second Term
IMED 1316 Web Page Design I ............................................................. 3
ARTV 1351 Digital Video ...................................................................... 3
ARTS 2349 Digital Art II or ARTC 1302 Digital Imaging I ................. 3
ARTC 2335 Portfolio Development for Graphic Design or ARTC 2366 Practicum (or Field Experience) - Commercial and Advertising Art ........................................... 3
Subtotal 12

Occupational Certificate Total 21

Art and Design (4ART-DSN)

Certificate of Technology
South Campus

This certificate of technology is designed to meet the needs of students who desire to enter the design workforce with a more specialized skillset. Building off the occupational certificate, students will complete four electives from one of the three specialized tracts offered: design communications, digital media and animation, and photo and video. All courses required for the certificate of technology may be used in completing the Art and Design Associate of Applied Science degree.

First Term

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>PHTC 1311 Fundamentals of Photography</td>
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<td>IMED 1301 Introduction to Digital Media</td>
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<tr>
<td>ARTS 2348 Digital Art I or ARTC 1325</td>
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<td>Introduction to Computer Graphics</td>
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Subtotal: 12

Second Term

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<tr>
<td>IMED 1316 Web Page Design I</td>
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<td>ARTV 1351 Digital Video</td>
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<td>ARTC 2335 Portfolio Development for Graphic</td>
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<td>Design or ARTC 2366 Practicum (or Field</td>
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<td>Experience) - Commercial and Advertising</td>
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<td>ARTS 2349 Digital Art II or ARTC 1302</td>
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Subtotal: 15

Third Term

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Subtotal: 6

Certificate of Technology Total: 33

Capstone Course: the 4th and final of the Approved Electives from the specific specialty block outlined under Electives. Completion of the entire block is required for the Certificate of Technology.

Approved Electives for the Art and Design Certificate of Technology are grouped into specialty blocks. Faculty will counsel students to fill their four approved elective spots with the courses from a single specialty block below:

Design Communications

- ARTS 2313 or ARTC 1317
- ARTS 2314 or ARTC 2347
- ARTC 1321 or IMED 2315

Digital Media and Animation

- ARTV 1303
- ARTV 1345
- ARTV 2301
- ARTV 1341

Photo and Video

- ARTS 2356
- PHTC 2301
- ARTS 2357
- ARTV 2341

Art and Design (3ART-DSN)

Approved Elective

Fourth Term

<table>
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<tr>
<th>Course</th>
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<tr>
<td>ENGL 1301 Composition I</td>
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<td>Approved Elective</td>
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<tr>
<td>Approved Elective</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1316 Drawing I</td>
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Subtotal: 15

Associate of Applied Science Degree Total: 60

Capstone Experience: The Capstone requirement will be fulfilled by a comprehensive exit exam, prepared and administered by the Art and Design technical program faculty.

Approved Electives for the AAS degree are grouped into specialty blocks. Faculty will counsel students to fill their four approved elective spots with the courses from a single specialty block below:
TECHNICAL PROGRAMS

Design Communications
ARTS 2313 or ARTC 1317
ARTS 2314 or ARTC 2347
ARTC 1321 IMED 2315

Digital Media and Animation
ARTV 1303 ARTV 1345 ARTV 2301 ARTV 1341

Photo and Video
ARTS 2356 PHTC 2301 ARTS 2357 ARTV 2341

* Courses which satisfy this requirement are listed in Behavioral and Social Sciences section of the Transfer Core curriculum.

** College Preparatory courses (those courses which have numbers beginning with 0) do not apply toward the associate degree. Technical courses do not transfer to a senior institution. See an Art and Design Department Counselor for information.

Audio Engineering
See Music

Automotive Collision Repair Technology

Occupational Certificate
North Campus

First Term
ABDR 1303 Vehicle Design and Structural Analysis ............ 3
ABDR 1519 Basic Metal Repair .................................... 5
ABDR 1307 Collision Repair Welding ............................ 3

Subtotal 11

Second Term
ABDR 2541 Major Collision Repair and Panel Replacement . 5
ABDR 1315 Vehicle Trim and Hardware .......................... 3

Subtotal 8

Occupational Certificate Total 19

Capstone Experience: ABDR 2541

Automotive Painting Specialty (6ACRT-PNT)

Occupational Certificate
North Campus

First Term
ABDR 1431 Basic Refinishing .................................... 4
ABDR 1558 Intermediate Refinishing ................................ 5
ABDR 2551 Specialized Refinishing Techniques ................. 5
ABDR 2549 Advanced Refinishing ................................ 5

Subtotal 19

Occupational Certificate Total 19

Capstone Experience: ABDR 2551

Automotive Collision Repair Technology Management Specialty (3ABCR-MGT)

North Campus
First Term
ABDR 1307 Collision Repair Welding ................................ 3
ABDR 1519 Basic Metal Repair .................................... 5
ABDR 1431 Basic Refinishing .................................... 4
ABDR 1303 Vehicle Design and Structural Analysis ............ 3

Subtotal 15

Second Term
ABDR 2541 Major Collision Repair and Panel Replacement . 5
ABDR 1441 Structural Analysis and Damage Repair I .......... 4
ABDR 2353 Color Analysis and Paint Matching ................ 3
ABDR 1315 Vehicle Trim and Hardware .......................... 3

Subtotal 15

Third Term
ABDR 2502 Auto Body Mechanical and Electrical Service ..... 5
ABDR 2255 Collision Repair Estimating .......................... 2
ABDR 2257 Collision Repair Shop Management .................. 2
ABDR 1323 Front and Rear Wheel Alignment or
ABDR 2380 Cooperative Education - Autobody/Collision and Repair Technology/Technician ....................... 3

Subtotal 12

Certificate of Technology Total 42

Capstone Experience: ABDR 2257

Automotive Collision Repair Technology Management Specialty (3ABCR-MGT)

Associate of Applied Science Degree
<table>
<thead>
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<tr>
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<td>ABDR 1323 Front and Rear Wheel Alignment or</td>
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* Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

Automotive Collision Repair (4ABCR-CR)
Collision repair is a skilled craft, which involves repairing collision-damaged motor vehicles through straightening frames, removing dents, welding torn metal, replacing damaged parts, spot repairing, and overall refinishing. Emphasis is placed on repairing late model vehicles.

### First Term
<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ABDR 1519 Basic Metal Repair</td>
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<td>Sheet Molding Compound Repair</td>
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**Associate of Applied Science Degree Total**  60

**Capstone Experience: ABDR 2380 or ABDR 1323**

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

### Automotive Technology, Future Automotive Service Technicians (FAST) Program

### Certificate of Technology (4ABCR-NC)

**North Campus**

<table>
<thead>
<tr>
<th>Course</th>
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**Capstone Experience: ABDR 2549**
**TECHNICAL PROGRAMS**

### Automotive Technology (5AUTO)

**Level 2 Certificate of Technology**  
**Central Campus**

The Automotive Technology Future Automotive Service Technicians (FAST) program prepares individuals for employment as automotive service technicians. San Jacinto College provides the training you need. Today’s automobiles are equipped with multiple computers and extensive electronics. Servicing vehicles equipped with active suspension, satellite guidance systems and computer controlled, multi-valve engines requires highly specialized training. Upon the completion of this curriculum, students should be prepared to take the Automotive Service Excellence (ASE) Certification exams and be ready for full-time employment in the automotive service industry. Students interested in the Automotive Technology FAST Level 2 Certificate program must meet with the FAST coordinator or department chair before registering for automotive classes.

<table>
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<td>AUMT 1410 Automotive Brake Systems</td>
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**Capstone Experience: Eligible for credentialing exams**

†For automotive technology degree/certificate programs, NOTE: Applicants must meet the admission requirements for SJC and achieve minimum scores on assessments for mechanical comprehension and reading.

All new students are required to attend automotive orientation.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved in writing by the department chair.

Students are required to furnish their own tools. (See a program instructor, program coordinator or the department chair for required tool list).

### Automotive Technology (3AUTO)

**Associate of Applied Science Degree**  
**Central Campus**

The Automotive Technology Future Automotive Service Technicians (FAST) program prepares individuals for employment as entry-level automotive service technicians. San Jacinto College provides the training you need. Today’s automobiles are equipped with multiple computers and extensive electronics. Servicing vehicles equipped with active suspension, satellite guidance systems and computer controlled, multi-valve engines requires highly specialized training. Upon the completion of this curriculum, students should be prepared to take the Automotive Service Excellence (ASE) Certification exams.

<table>
<thead>
<tr>
<th>Term</th>
<th>Credit</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
<td><strong>First Term</strong></td>
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<td>AUMT 1272 Automotive Maintenance and Repair</td>
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**Capstone Experience: AUMT 2288 Internship Automobile/Automotive Mechanics Technology/Technician**

**Eligible for credentialing exams**

†For automotive technology degree/certificate programs, NOTE: Applicants must meet the admission requirements for SJC and achieve minimum scores on assessments for mechanical comprehension and reading.

All new students are required to attend automotive orientation.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved in writing by the department chair.

Students are required to furnish their own tools. (See a program instructor, program coordinator or the department chair for required tool list).  

**Mopar College Automotive Program**

[www.sanjac.edu](http://www.sanjac.edu)  
95
Mopar College Automotive Program

(CAP) (5AUTO-C)

Level 2 Certificate of Technology
Central Campus
The Mopar CAP Level 2 certificate prepares individuals for entry level employment as automotive service technicians. San Jacinto College provides the training you need. Today’s automobiles are equipped with multiple computers and extensive electronics. Servicing vehicles equipped with active suspension, satellite guidance systems and computer controlled, multi-valve engines requires highly specialized training. Upon the completion of this curriculum, students should be prepared to take the Automotive Service Excellence (ASE) Certification exams and be ready for full-time employment in the automotive service industry. Students interested in the Mopar CAP Level 2 Certificate program must meet with the CAP coordinator or department chair before registering for automotive classes.

First Term Credit
AUMT 1407 Automotive Electrical Systems .......................... 4
AUMT 2417 Automotive Engine Performance Analysis I ...... 4
AUMT 2288 Internship - Automotive Technology .................. 2
Subtotal 10

Second Term Credit
AUMT 1410 Automotive Brake Systems .............................. 4
AUMT 1416 Automotive Suspension and Steering Systems 4
AUMT 2188 Internship - Automotive Technology .................. 1
Subtotal 9

PostY1Summer Credit
AUMT 2313 Manual Drivetrain and Axles ........................... 3
AUMT 1345 Automotive Climate Control Systems .................. 3
Subtotal 6

Third Term Credit
AUMT 2288 Internship - Automotive Technology .................. 2
AUMT 2421 Automotive Electrical Diagnosis and Repair ...... 4
AUMT 2425 Automotive Automatic Transmission and Transaxles .................................................. 4
Subtotal 13

Fourth Term Credit
AUMT 2288 Internship - Automotive Technology .................. 2
AUMT 1419 Automotive Engine Repair .............................. 4
AUMT 2434 Automotive Engine Performance Analysis II ...... 4
Subtotal 10

Level 2 Certificate total 45

Capstone Experience: AUMT 2288 Internship Automobile/Automotive Mechanics Technology/Technician; Eligible for credentialing exams

1For automotive technology degree/certificate programs, NOTE: Applicants must meet the admission requirements for SJCC and achieve minimum scores on assessments for mechanical comprehension and reading.

All new students are required to attend automotive orientation.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved in writing by the department chair.

Mopar College Automotive Program

(CAP) (3AUTO-C)

Associate of Applied Science Degree
Central Campus
Mopar College Automotive Program (CAP) streamlines the path to becoming a highly trained automotive technician to less than two years. In Mopar CAP you will alternate between San Jacinto College, a Mopar CAP college and hands-on work experience at your sponsoring dealership. Mopar CAP instructors are Mopar Group LLC trained, and in touch with the latest automotive trends. You will be learning from the best. Learn how to identify, analyze and solve complex automotive problems. Theory and practical application will come together as you spend time working on actual customer vehicles. Mopar Group LLC requires Mopar CAP instructors to have the latest high tech training available. Mopar CAP colleges are ready to provide the most current training available in the industry. As a Mopar CAP student, you will complete between 80 and 100 percent of the Mopar training required to become a Mopar, Jeep and Ram certified technician. The more you train, the more valuable you become as an employee. Mopar Group LLC donates new vehicles to its Mopar CAP colleges. This ensures that you are training on the latest vehicle technology. If you are training on 10-year-old vehicles your training is already 10 years out of date. All Mopar CAP programs, including San Jacinto College, are accredited by the National Automotive Technicians Education Foundation (NATEF). This accreditation ensures that your training will meet or exceed industry standards. All Mopar CAP instructors must be certified by the National Institute for Automotive Service Excellence (ASE) before they are allowed to teach in any Mopar CAP classroom. You deserve to be trained by the best. Students interested in the Mopar CAP program are required to meet with the CAP coordinator or department chair before registering for automotive classes.

First Term Credit
AUMT 1407 Automotive Electrical Systems .......................... 4
AUMT 2417 Automotive Engine Performance Analysis I ...... 4
AUMT 2288 Internship - Automotive Technology .................. 2
Speech ................................................................. 3
Subtotal 13

Second Term Credit
AUMT 1410 Automotive Brake Systems .............................. 4
AUMT 1416 Automotive Suspension and Steering Systems 4
AUMT 2188 Internship - Automotive Technology .................. 1
**Social and Behavioral Sciences ........................................ 2
**Humanities or Fine Arts ............................................ 3
Subtotal 15

PostY1Summer Credit
AUMT 2313 Manual Drivetrain and Axles ........................... 3
AUMT 1345 Automotive Climate Control Systems .................. 3
Subtotal 6

Third Term Credit
AUMT 2288 Internship - Automotive Technology .................. 2
AUMT 2421 Automotive Electrical Diagnosis and Repair ...... 4
AUMT 2425 Automotive Automatic Transmission and Transaxle .................................................. 4
ENGL 1301 Composition I ............................................. 3
Fourth Term Credit

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<td>AUMT 2434 Automotive Engine Performance Analysis II</td>
<td>4</td>
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<tr>
<td>MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher</td>
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Subtotal 13

**For automotive technology degree/certificate programs, NOTE: Applicants must meet the admission requirements for SJC and achieve minimum scores on assessments for mechanical comprehension and reading.**

All new students are required to attend automotive orientation.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved in writing by the department chair.

Students are required to furnish their own tools. (See a program instructor, program coordinator or the department chair for required tool list).

**Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.**

**Ford Automotive Student Educational Training (ASSET) Program (5AUTO-F)**

**Level 2 Certificate Central Campus**

The Ford ASSET Level 2 certificate prepares individuals for entry-level employment as automotive service technicians. San Jacinto College provides the training you need. Today’s automobiles are equipped with multiple computers and extensive electronics. Servicing vehicles equipped with active suspension, satellite guidance systems and computer controlled, multi-valve engines requires highly specialized training. Upon the completion of this curriculum, students should be prepared to take the Automotive Service Excellence (ASE) Certification exams and be ready for full-time employment in the automotive service industry. Students interested in the Ford Level 2 Certificate program must meet with the ASSET coordinator or department chair before registering for automotive classes.

**First Term**

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Subtotal 10

**Second Term**

<table>
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<tbody>
<tr>
<td>AUMT 1416 Automotive Suspension and Steering Systems</td>
<td>4</td>
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<tr>
<td>AUMT 1410 Automotive Brake Systems</td>
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<tr>
<td>AUMT 2188 Internship - Automotive Technology</td>
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Subtotal 9

**PostY1Summer**

<table>
<thead>
<tr>
<th>Course Description</th>
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<tbody>
<tr>
<td>AUMT 1345 Automotive Climate Control Systems</td>
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<td>AUMT 1319 Automotive Engine Repair</td>
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Subtotal 6

**Third Term**

<table>
<thead>
<tr>
<th>Course Description</th>
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<tbody>
<tr>
<td>AUMT 2288 Internship - Automotive Technology</td>
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<tr>
<td>AUMT 2417 Automotive Engine Performance Analysis I</td>
<td>4</td>
</tr>
<tr>
<td>AUMT 2434 Automotive Engine Performance Analysis II</td>
<td>4</td>
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</tbody>
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Subtotal 10

**Fourth Term**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit</th>
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<tbody>
<tr>
<td>AUMT 2288 Internship - Automotive Technology</td>
<td>2</td>
</tr>
<tr>
<td>AUMT 2413 Automotive Drivetrain and Axles</td>
<td>4</td>
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<tr>
<td>AUMT 2425 Automotive Automatic Transmission and Transaxle</td>
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Subtotal 10

**Level 2 Certificate Total** 45

**Capstone Experience: AUMT 2288 Internship Automobile/Automotive Mechanics Technology/Technician; Eligible for credentialing exam**

**For automotive technology degree/certificate programs, NOTE: Applicants must meet the admission requirements for SJC and achieve minimum scores on assessments for mechanical comprehension and reading.**

All new students are required to attend automotive orientation.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved in writing by the department chair.

Students are required to furnish their own tools. (See a program instructor, program coordinator or the department chair for required tool list).

**Ford Automotive Student Educational Training (ASSET) Program (3AUTO-F)**

**Associate of Applied Science Degree Central Campus**

The Ford ASSET program streamlines the path to becoming a highly trained automotive technician to less than two years.
the Ford ASSET program you will alternate between San Jacinto College, a Ford ASSET College and hands-on work experience at your sponsoring dealership. Ford ASSET instructors are Ford trained and in touch with the latest automotive trends. You will be learning from the best. Learn how to identify, analyze and solve complex automotive problems. Theory and practical application will come together as you spend time working on actual customer vehicles. Ford Motor Company requires Ford ASSET instructors to have the latest high tech training available. Ford ASSET colleges are ready to provide the most current training available in the industry. As a Ford ASSET student you will complete between 80 and 100 percent of the Ford training required to become a Ford certified technician. The more you train, the more valuable you become as an employee. Ford Motor Company donates new vehicles to its Ford ASSET colleges. This ensures that you are training on the latest vehicle technology. If you are training on 10-year-old vehicles your training is already 10 years out of date. All Ford ASSET programs, including San Jacinto College, are accredited by the National Automotive Technicians Education Foundation (NATEF). This accreditation ensures that your training will meet or exceed industry standards. All Ford ASSET instructors must be certified by the National Institute for Automotive Service Excellence (ASE) before they are allowed to teach in any Ford ASSET classroom. Students interested in the Ford ASSET program are required to meet with the ASSET coordinator or department chair before registering for automotive classes.

First Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>AUMT 1407 Automotive Electrical Systems</td>
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<tr>
<td>AUMT 2421 Automotive Electrical Diagnosis and Repair</td>
<td>4</td>
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<tr>
<td>AUMT 2288 Internship - Automotive Technology</td>
<td>2</td>
</tr>
<tr>
<td>Speech</td>
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Second Term

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>AUMT 1416 Automotive Suspension and Steering Systems</td>
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<td>AUMT 1410 Automotive Brake Systems</td>
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<td>AUMT 2188 Internship - Automotive Technology</td>
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<tr>
<td><strong>Social and Behavioral Sciences</strong></td>
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<td><strong>Humanites or Fine Arts</strong></td>
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PostY1Summer

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>AUMT 1345 Automotive Climate Control Systems</td>
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<td>AUMT 1319 Automotive Engine Repair</td>
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<td><strong>Subtotal</strong></td>
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Third Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>AUMT 2288 Internship - Automotive Technology</td>
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<tr>
<td>AUMT 2417 Automotive Engine Performance Analysis I</td>
<td>4</td>
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<td>AUMT 2434 Automotive Engine Performance Analysis II</td>
<td>4</td>
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<tr>
<td>ENGL 1301 Composition I</td>
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<td><strong>Subtotal</strong></td>
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Fourth Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>AUMT 2288 Internship - Automotive Technology</td>
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<tr>
<td>AUMT 2413 Manual Drivetrain and Axles</td>
<td>4</td>
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<td>AUMT 2425 Automotive Automatic Transmission and Transaxles</td>
<td>4</td>
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<td>MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher</td>
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</table>

**Capstone Experience:** AUMT 2288 Internship Automotive/Automotive Mechanics Technology/Technician; Eligible for credentialing exam

†For automotive technology degree/certificate programs, NOTE: Applicants must meet the admission requirements for SJC and achieve minimum scores on assessments for mechanical comprehension and reading.

All new students are required to attend automotive orientation.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved in writing by the department chair.

Students are required to furnish their own tools. (See a program instructor, program coordinator or the department chair for required tool list).

** Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

General Motors Automotive Service Educational Program (ASEP) (3AUTO-G)

Associate of Applied Science Degree Central Campus

GM ASEP streamlines the path to becoming a highly trained automotive technician to less than two years. In GM ASEP you
will alternate between San Jacinto College, a GM ASEP College and hands-on work experience at your sponsoring dealership. GM ASEP instructors are GM trained and in touch with the latest automotive trends. You will be learning from the best. Learn how to identify, analyze and solve complex automotive problems. Theory and practical application will come together as you spend time working on actual customer vehicles. General Motors requires GM ASEP instructors to have the latest high tech training available. GM ASEP colleges are ready to provide the most current training available in the industry. As a GM ASEP student you will complete between 80 and 100 percent of the GM training required to become a GM certified technician. The more you train, the more valuable you become as an employee. GM donates new vehicles to its GM ASEP colleges. This ensures that you are training on the latest vehicle technology. If you are training on 10-year-old vehicles your training is already 10 years out of date. All GM ASEP Programs, including San Jacinto College, are accredited by the National Automotive Technicians Education Foundation (NATEF). This accreditation ensures that your training will meet or exceed industry standards. All GM ASEP instructors must be certified by the National Institute for Automotive Service Excellence before they are allowed to teach in any GM ASEP classroom. In fact, many of these instructors have gone on to achieve GM World Class status, the highest achievement for a GM technician. You deserve to be trained by the best. Students interested in the GM ASEP program are required to meet with the ASEP coordinator or department chair before registering for automotive classes. **Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum. Honda Professional Automotive Career Training (PACT) Program (5AUTO-H)

**Level 2 Certificate **
Central Campus

The Honda PACT Level 2 certificate is designed to teach technical competence and professional level skills to incoming technicians.

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>AUMT 1407 Automotive Electrical Systems</td>
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<td>AUMT 2421 Automotive Electrical Diagnosis and Repair</td>
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<td>AUMT 2288 Internship - Automotive Technology</td>
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<tr>
<td>Speech</td>
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<table>
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<td><strong>Social and Behavioral Sciences</strong></td>
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<tr>
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<td>AUMT 1316 Automotive Suspension and Steering</td>
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<th>Third Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>AUMT 2288 Internship - Automotive Technology</td>
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<td></td>
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<tr>
<td>AUMT 2413 Manual Drivetrain and Axles</td>
<td>4</td>
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<td>AUMT 2425 Automotive Automatic Transmission and Transaxles</td>
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<tr>
<td>ENGL 1301 Composition I</td>
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<table>
<thead>
<tr>
<th>Fourth Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>AUMT 2288 Internship - Automotive Technology</td>
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<tr>
<td>AUMT 2417 Automotive Engine Performance Analysis I</td>
<td>4</td>
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<tr>
<td>AUMT 2434 Automotive Engine Performance Analysis II</td>
<td>4</td>
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<tr>
<td>MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</table>

**Associate of Applied Science Degree Total**

For automotive technology degree/certificate programs, NOTE: Applicants must meet the admission requirements for SJC and achieve minimum scores on assessments for mechanical comprehension and reading. All new students are required to attend automotive orientation. Department-specific courses must be taken in sequence and may have a prerequisite course. Exceptions must be approved in writing by the department chair. Students are required to furnish their own tools. (See a program instructor, program coordinator or the department chair for required tool list).

†For automotive technology degree/certificate programs, NOTE: Applicants must meet the admission requirements for SJC and achieve minimum scores on assessments for mechanical comprehension and reading. All new students are required to attend automotive orientation. Department-specific courses must be taken in sequence and may have a prerequisite course. Exceptions must be approved in writing by the department chair. Students are required to furnish their own tools. (See a program instructor, program coordinator or the department chair for required tool list).

**For automotive technology degree/certificate programs, NOTE: Applicants must meet the admission requirements for SJC and achieve minimum scores on assessments for mechanical comprehension and reading. All new students are required to attend automotive orientation. Department-specific courses must be taken in sequence and may have a prerequisite course. Exceptions must be approved in writing by the department chair. Students are required to furnish their own tools. (See a program instructor, program coordinator or the department chair for required tool list).**
The curriculum has been co-designed by Honda and San Jacinto College. San Jacinto College provides the training you need. The program requires the student to work at a Honda or Acura dealership as well as attend San Jacinto College classroom and laboratory classes, where the student will work on Honda and Acura donated training vehicles. Upon the completion of this curriculum, students should be prepared to take the Automotive Service Excellence (ASE) Certification exams and be ready for full-time employment in the automotive service industry. San Jacinto College is accredited by the National Automotive Technicians Education Foundation (NATEF). This accreditation ensures that your training will meet or exceed industry standards. Students interested in the Honda Level 2 Certificate program must meet with the PACT coordinator or department chair before registering for automotive classes.

Pre-requisite Credit
AUMT 1471 Manufacturers Maintenance and Pre-Delivery . 4
Subtotal 4

First Term Credit
AUMT 1407 Automotive Electrical Systems ......................... 4
AUMT 2421 Automotive Electrical Diagnosis and Repair ...... 4
AUMT 2288 ...Internship-Automobile/Automotive Mechanics
Technology/Technician ............................................. 2
Subtotal 10

Second Term Credit
AUMT 1410 Automotive Brake Systems ......................... 4
AUMT 1416 Automotive Suspension and Steering Systems 4
AUMT 2288 ...Internship-Automobile/Automotive Mechanics
Technology/Technician ............................................. 2
Subtotal 10

PostY1Summer Credit
AUMT 1445 Automotive Climate Control Systems ............. 4
AUMT 1419 Automotive Engine Repair .......................... 4
Subtotal 8

Third Term Credit
AUMT 2288 ...Internship-Automobile/Automotive Mechanics
Technology/Technician ............................................. 2
AUMT 2417 Automotive Engine Performance Analysis I ...... 4
AUMT 2434 Automotive Engine Performance Analysis II ...... 4
Subtotal 10

Level 2 Certificate Total 42

Capstone Experience: AUMT 2288 Internship Automobile/Automotive Mechanics Technology/Technician; Eligible for credentialing exams

For automotive technology degree/certificate programs, NOTE: Applicants must meet the admission requirements for SJC and achieve minimum scores on assessments for mechanical comprehension and reading.

All new students are required to attend automotive orientation.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved in writing by the department chair.

Students are required to furnish their own tools. (See a program instructor, program coordinator or the department chair for required tool list).

Honda Professional Automotive Career

Training (PACT) Program (3AUTO-H)

Associate of Applied Science Degree
Central Campus

Honda PACT streamlines the path to becoming a highly trained automotive technician to less than two years. In Honda PACT you will alternate between San Jacinto College, a Honda PACT College and hands-on work experience at your sponsoring dealership.

Honda PACT instructors are Honda trained and in touch with the latest automotive trends. You will be learning from the best. Learn how to identify, analyze and solve complex automotive problems. Theory and practical application will come together as you spend time working on actual customer vehicles. American Honda Motor Co. Inc., requires Honda PACT instructors to have the latest high tech training available. Honda PACT colleges are ready to provide the most current training available in the industry. As a Honda PACT student you will complete between 80 and 100 percent of the Honda training required to become a Honda certified technician. The more you train, the more valuable you become as an employee. American Honda Motor Co. Inc. donates new vehicles to its Honda PACT colleges. This ensures that you are training on the latest vehicle technology. If you are training on 10-year-old vehicles your training is already 10 years out of date. All Honda PACT programs, including San Jacinto College, are accredited by the National Automotive Technicians Education Foundation (NATEF). This accreditation ensures that your training will meet or exceed industry standards. All Honda PACT instructors must be certified by the National Institute for Automotive Service Excellence (ASE) before they are allowed to teach in any Honda PACT classroom. You deserve to be trained by the best. Students interested in the Honda PACT program are required to meet with the PACT coordinator or department chair before registering for automotive classes.

Pre-requisite Credit
AUMT 1471 Manufacturers Maintenance and Pre-Delivery . 4
Subtotal 4

First Term Credit
AUMT 1407 Automotive Electrical Systems ......................... 4
AUMT 2421 Automotive Electrical Diagnosis and Repair ...... 4
AUMT 2288 Internship - Automotive Technology ............... 2
Speech ........................................................................... 3
Subtotal 13

Second Term Credit
AUMT 1410 Automotive Brake Systems ......................... 4
AUMT 1416 Automotive Suspension and Steering Systems 4
AUMT 2288 Internship - Automotive Technology ............... 2
**Social and Behavioral Sciences .................................... 3
**Humanities or Fine Arts ............................................. 3
Subtotal 16

PostY1Summer Credit
AUMT 1445 Auto Climate Control Systems ..................... 4
AUMT 1419 Automotive Engine Repair .......................... 4
Subtotal 8

Third Term Credit
AUMT 2288 Internship - Automotive Technology ............... 2
AUMT 2417 Automotive Engine Performance Analysis I ...... 4  
AUMT 2434 Automotive Engine Performance Analysis II ...... 4  
ENGL 1301 Composition I .......................................................... 3  
Subtotal 13  
**Fourth Term**  
Credit  
AUMT 2388 Internship - Automotive Technology ...................... 3  
MATH 1333 Contemporary Mathematics for Technical Programs  
or MATH 1314 College Algebra or higher .................................. 3  
Subtotal 6  
**Associate of Applied Science Degree Total** 60  
**Capstone Experience: AUMT 2388 Internship Automotive/  
Automotive Mechanics Technology/Technician; Eligible for  
credentiaing exam.**

For automotive technology degree/certificate programs, NOTE: Applicants must  
meet the admission requirements for SJC and achieve minimum scores on assessments for  
mechanical comprehension and reading.  

All new students are required to attend automotive orientation.  
Department-specific courses must be taken in sequence and may have a prerequisite course.  
Exceptions must be approved in writing by the department chair.  
Students are required to furnish their own tools. (See a program instructor, program coordinator or the department chair for required tool list).  
**Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences section of the Transfer Core Curriculum.**

The Honda PACT Enhanced Skills Certificate (EAUTO-H) is designed for students who have completed the Honda PACT Associate of Applied Science Degree (3AUTO-H).

The Honda PACT Enhanced Skills Certificate (EAUTO-H) is designed for students who have completed the Honda PACT Associate of Applied Science Degree (3AUTO-H).

Honda Professional Automotive Career Training (PACT) Program (EAUTO-H)

**Enhanced Skills Certificate**  
**Central Campus**  
The Honda PACT Enhanced Skills Certificate must be completed to receive Honda/Acura manufacturers credentials and to meet American Honda Motor Company requirements. Students interested in the Honda PACT program must meet with the PACT coordinator or department chair before registering for automotive classes.

**First Term**  
Credit  
AUMT 2413 Manual Drivetrain and Axles .................................. 4  
AUMT 2425 Automotive Automatic Transmission  
and Transaxles ......................................................................... 4  
Subtotal 8  
**Enhanced Skills Certificate Total** 8

**Toyota Technician Training & Education Network Program (TTEN)**

Toyota TTEN streamlines the path to becoming a highly trained automotive technician to less than two years. In Toyota TTEN, you will alternate between San Jacinto College, a Toyota TTEN College and hands-on work experience at your sponsoring dealership. Toyota TTEN instructors are Toyota trained and in touch with the latest automotive trends. You will be learning from the best. Learn how to identify, analyze and solve complex automotive problems. Theory and practical application will come together as you spend time working on actual customer vehicles. Toyota Motor Sales, U.S.A., Inc. requires Toyota TTEN instructors to have the latest high tech training available. Toyota TTEN colleges are ready to provide the most current training available in the industry. The more you train, the more valuable you become as an employee. Toyota Motor Sales, U.S.A., Inc. donates new vehicles to its Toyota TTEN colleges. This ensures that you are training on the latest vehicle technology. If you are training on 10 year old vehicles your training is already 10 years out of date. All Toyota TTEN Programs including San Jacinto College are accredited by the National Automotive Technicians Education Foundation (NATEF). This accreditation ensures that your training will meet or exceed industry standards. All Toyota TTEN instructors must be certified by the National Institute for Automotive Service Excellence (ASE) before they are allowed to teach in any Toyota TTEN classroom. You deserve to be trained by the best. Students interested in the Toyota TTEN program are required to meet with the TTEN coordinator or department chair before registering for automotive classes.

**Toyota Technician Training & Education Network (TTEN) Program (5AUTO-TTEN)**

**Level 2 Certificate**  
**Central Campus**  
Pre-requisite  
AUMT 1471 Manufacturers Maintenance and Pre-Delivery .......... 4  
Subtotal 4  
**First Term**  
Credit  
AUMT 1407 Automotive Electrical Systems ............................... 4  
AUMT 2421 Automotive Electrical Diagnosis and Repair .......... 4  
AUMT 2288 Internship - Automotive Technology ...................... 2  
Subtotal 10  
**Second Term**  
Credit  
AUMT 1410 Automotive Brake Systems .................................... 4  
AUMT 1416 Automotive Suspension and Steering Systems .... 4  
AUMT 2288 Internship - Automotive Technology ...................... 2  
Subtotal 10  
**PostY1Summer**  
Credit  
AUMT 1445 Automotive Climate Control Systems ................. 4  
AUMT 1419 Automotive Engine Repair .................................... 4  
Subtotal 8  
**Third Term**  
Credit  
AUMT 2288 Internship - Automotive Technology .................... 2  
AUMT 2417 Automotive Engine Performance Analysis I ........ 4  
AUMT 2434 Automotive Engine Performance Analysis II ........ 4  
Subtotal 10
TECHNICAL PROGRAMS

Level 2 Certificate Total 42

Capstone Experience: AUMT 2288 Internship - Automobile/ Automotive Mechanics Technology/Technician; Eligible for credentialing exam

Toyota Technician Training & Education Network (TTEN) Program (3AUTO-TTEN)

Associate of Applied Science Degree

Central Campus

Toyota TTEN streamlines the path to becoming a highly trained automotive technician to less than two years. In Toyota TTEN you will alternate between San Jacinto College, a Toyota TTEN College and hands-on work experience at your sponsoring dealership. Toyota TTEN instructors are Toyota trained and in touch with the latest automotive trends. You will be learning from the best. Learn how to identify, analyze and solve complex automotive problems. Theory and practical application will come together as you spend time working on actual customer vehicles. Toyota Motor Sales, U.S.A., Inc., requires Toyota TTEN instructors to have the latest high tech training available. Toyota TTEN colleges are ready to provide the most current training available in the industry. The more you train, the more valuable you become as an employee. Toyota Motor Sales, U.S.A., Inc. donates new vehicles to its Toyota TTEN colleges. This ensures that you are training on the latest vehicle technology. If you are training on 10-year-old vehicles your training is already 10 years out of date. All Toyota TTEN programs, including San Jacinto College, are accredited by the National Automotive Technicians Education Foundation (NATEF). This accreditation ensures that your training will meet or exceed industry standards. All Toyota TTEN instructors must be certified by the National Institute for Automotive Service Excellence (ASE) before they are allowed to teach in any Toyota TTEN classroom. You deserve to be trained by the best. Students interested in the Toyota TTEN program are required to meet with the TTEN coordinator or department chair before registering for automotive classes.

Pre-requisite Credit
AUMT 1471 Manufacturers Maintenance and Pre-Delivery 4
Subtotal 4

First Term Credit
AUMT 1407 Automotive Electrical Systems 4
AUMT 2421 Automotive Electrical Diagnosis and Repair 4
AUMT 2288 Internship - Automotive Technology 2
Speech 3
Subtotal 13

Second Term Credit
AUMT 1410 Automotive Brake Systems 4
AUMT 1416 Automotive Suspension and Steering Systems 4
AUMT 2288 Internship - Automotive Technology 4
*Social and Behavioral Sciences 3
*Humanities or Fine Arts 3

Subtotal 16

PostY1 Summer Credit
AUMT 1445 Automotive Climate Control Systems 4
AUMT 1419 Automotive Engine Repair 4
Subtotal 8

Third Term Credit
AUMT 2288 Internship - Automotive Technology 2
AUMT 2417 Automotive Engine Performance Analysis I 4
AUMT 2434 Automotive Engine Performance Analysis II 4
ENGL 1301 Composition I 3
Subtotal 13

Fourth Term Credit
AUMT 2388 Internship - Automotive Technology 3
MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher 3
Subtotal 6

Associate of Applied Science Degree Total 60

Capstone Experience: AUMT 2388 Internship Automobile/Automotive Mechanics Technology/Technician; Eligible for credentialing exam

† For automotive technology degree/certificate programs, NOTE: Applicants must meet the admission requirements for SJC and achieve minimum scores on assessments for mechanical comprehension and reading.

All new students are required to attend automotive orientation.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved in writing by the department chair.

Students are required to furnish their own tools. (See a program instructor, program coordinator or the department chair for required tool list).

* Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

**The Toyota TTEN Program, Enhanced Skills Certificate (EAUTO-TTEN) is designed for the students who have completed the Toyota TTEN Associate of Applied Science Degree.

Toyota Technician Training & Education Network (TTEN) Program (EAUTO-TTEN)

Enhanced Skills Certificate

Central Campus

The Toyota TTEN Enhanced Skills Certificate must be completed to receive Toyota/Lexus manufacturers credentials and to meet
Toyota Motor Sales USA Inc., requirements. Students interested in the Toyota TTEN Program must meet with the Toyota TTEN coordinator or department chair before registering for automotive classes.

The Toyota Technician Training & Education Network (TTEN) Program

Enhanced Skills Certificate is designed for students who have completed the Toyota Technician Training & Education Network (TTEN) program Associate of Applied Science degree.

**First Term**

<table>
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<th>Course Description</th>
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<td>AUMT 2425 Automotive Automatic Transmission and Transaxles</td>
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**Enhanced Skills Certificate Total** 8

**Biomedical Clinical Equipment Technician**

The Biomedical Clinical Equipment Technician curriculum is designed to provide basic training for students to enter and/or advance in the occupations associated with medical equipment maintenance and repair. A Biomedical Equipment Technician must possess the skills necessary to repair and replace parts on medical equipment, test and calibrate equipment, perform and record preventative maintenance, procure and track inventory, and facilitate training sessions on the equipment. A graduate in this program will gain the theoretical knowledge needed to understand the equipment as well as the practical (hands-on) skills to operate and repair the equipment. Employment of medical equipment repairers is projected to grow 31 percent from 2010 to 2020, much faster than the average for all occupations. Greater demand for health care services and the use of increasingly complex medical equipment will drive this employment growth. Those who have an associate degree in biomedical equipment technology should have the best job opportunities. Biomedical Repair Technicians are most commonly employed by hospitals or clinics, private companies and the military. Biomedical Repair Technicians must be able to interact with health care professionals, administrators, patients, and vendors to perform their jobs. Although some medical equipment repairers are trained to fix a variety of equipment, others specialize in repairing one or a small number of machines. For less complicated equipment, such as electric hospital beds, workers make repairs as needed. You can become a Certified Biomedical Equipment Technician (CBET) through the Association for the Advancement of Medical Instrumentation (AAMI) by sitting for the exam administered by the International Certification Commission (ICC). Additional credentials are also offered by the AAMI. Eligibility requirements vary depending on your level of education and work experience. Once you have completed an associate degree in Biomedical Equipment Technology and gained two years of work experience in the field, you are eligible for certification.

As with most technology, advances in medical equipment are constantly evolving. Because of this, you are required to complete continuing education activities in order to keep your skills and equipment knowledge up to date.

The student that begins the program in the occupational certificate will start to build a foundation for developing an understanding in medical equipment, computer, and electronics operation and repair. The next two certificates (certificate of technology and the level 2 certificate) build upon these foundation classes with more specialized biomedical equipment classes to provide the student with more theoretical and practical industry expertise and the chance for an internship. All of these certificates are stackable and lead directly to the associate of applied science. Some students with previous biomedical equipment repair experience can enter the workplace with the certificates, while students with no previous experience are directed to complete the associate of applied science degree.

**Biomedical Clinical Equipment Technician (6BIOMD-CET)**

<table>
<thead>
<tr>
<th>Occupational Certificate</th>
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www.sanjac.edu 103
# TECHNICAL PROGRAMS

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<tr>
<th>Course Code</th>
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<tr>
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<td>BIOM 2301</td>
<td>Safety in Health Care Facilities</td>
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<td>CETT 1302</td>
<td>Electricity Principles</td>
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<td>Fundamentals of Networking Technologies</td>
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<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I or</td>
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## Biomedical Clinical Equipment Technician

### (4BIOMD-CET)

#### Certificate of Technology

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#### Subtotal: 33

### Capstone Experience: BIOM 2389

## Biomedical Clinical Equipment Technician

### (5BIOMD-CET)

#### Level 2 Certificate

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<td>BIOM 2319</td>
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## Biomedical Clinical Equipment Technician

### (3BIOMD-CET)

#### Associate of Applied Science Degree

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<td>BIOM 1309</td>
<td>Applied Biomedical Equipment Technology</td>
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Business Management

Business management is a two-year supervisory training program that combines classroom management theory with practical on-the-job training. The program leads to the associate of applied science in Business Management. The business management curriculum includes courses designed to provide a practical, comprehensive program covering certain managerial activities. The program is designed to meet the needs of people preparing for careers in business and industry such as retailing, wholesaling, industrial management, small business, and human resources. The business management program supports the theory that there is no substitute for world-of-work experience in the learning process. Management course work includes studies in basic principles of management, human relations, group dynamics, motivation of individuals and groups, leadership development, organization of work and people, study of supervisory functions, and many other management interests, including international business and trade.

A Contemporary Approach to Management Training

Concurrent with the business management courses, the supervision major or the small business entrepreneur major is required to take a practicum, which coordinates job training with classroom theory. One of the requirements of the practicum course is that a student work a minimum of 20 hours per week at a training station approved by a business management coordinator. Designed as a development tool, the practicum requires that the business management coordinator, the employer, and the student agree on a tentative training outline or personal development plan which, according to specific guidelines, must improve, enhance, and demonstrate personal and professional managerial skills of the student at work.

Note: Students taking the practicum courses should be counseled by a business management coordinator or the department chair prior to registration. BMGT 2368 can be taken more than once for credit; consequently, the credit for this course, when taken more than once, may be applied toward the certificate of technology and toward the degree. This practicum helps the student receive practical training and experience compatible with his or her management career objective.

Business Management - Entrepreneur (4BMGT-ENTR)

Certificate of Technology
All Campuses

The Business Management Entrepreneur Certificate of Technology program is designed for students who desire to earn a credential after one year of study. All courses required for the certificate of technology may apply toward the Business Management Entrepreneur Associate of Applied Science.

First Term

<table>
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<tr>
<th>Course</th>
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<tr>
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<tr>
<td>HRPO 1311 Human Relations</td>
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<td>BMGT 1327 Principles of Management</td>
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<tr>
<td>MRKG 1311 Principles of Marketing</td>
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<tr>
<td>ACCT 2301 Principles of Financial Accounting</td>
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Second Term

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<td>BMGT 1301 Supervision</td>
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<tr>
<td>BUSG 1341 Small Business Financing</td>
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<td>ACNT 1311 Introduction to Computerized Accounting</td>
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Subtotal 15
Certificate of Technology Total 30
Capstone Experience: MRKG 2333

Business Management - Entrepreneurship (5BMGT-ENTR)

Level 2 Certificate
All Campuses
First Term Credit
BCIS 1305 Business Computer Applications .................................. 3
HRPO 1311 Human Relations ......................................................... 3
MRKG 1311 Principles of Marketing ................................................ 3
ACNT 1303 Introduction to Accounting I or
ACCT 2301 Principles of Financial Accounting ......................... 3
BMGT 1327 Principles of Management ......................................... 3
Subtotal 15
Second Term Credit
BUSI 2304 Business Communications ......................................... 3
MRKG 2333 Principles of Selling .................................................... 3
BMGT 1301 Supervision ................................................................ 3
BUSG 1341 Small Business Financing ......................................... 3
ACNT 1311 Introduction to Computerized Accounting or
ACCT 2302 Principles of Managerial Accounting .................... 3
Subtotal 15
Third Term Credit
BUSG 2309 Small Business Management ..................................... 3
BUSI 2301 Business Law ............................................................... 3
BMGT 1313 Principles of Purchasing ............................................ 3
BMGT 2309 Leadership ................................................................. 3
BMGT 2368 Practicum (or Field Experience) - Business Administration and Management, General .................. 3
Subtotal 15
Fourth Term Credit
*Economics or Psychology or Sociology ................................. 3
ENGL 1301 Composition I ............................................................ 3
Math 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra ......................... 3
SPCH 1315 Public Speaking or
SPCH 1321 Business and Professional Speech .................... 3
*Humanities or Fine Arts ............................................................ 3
Subtotal 15

Associate of Applied Science Degree Total 60
Capstone Experience: BUSG 2309

Management (MBMG-MGMT)

Marketable Skills Achievement Award
All Campuses
First Term Credit
MRKG 1311 Principles of Marketing ............................................. 3
BCIS 1305 Business Computer Apps .......................................... 3
BMGT 1327 Principles of Management ........................................ 3
HRPO 1311 Human Relations ..................................................... 3

* Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.
TECHNICAL PROGRAMS

Marketable Skills Achievement Award Total 12

Business Management (6BMGT-MGMT)

Occupational Certificate
All Campuses
First Term Credit
HRPO 1311 Human Relations ........................................... 3
BMGT 1327 Principles of Management ................................ 3
MRKG 1311 Principles of Marketing .................................. 3
BCIS 1305 Business Computer Applications ...................... 3
ACCT 2301 Principles of Financial Accounting or ACNT 1303 Introduction to Accounting I .................................. 3
Subtotal 15

Second Term Credit
BUSI 2304 Business Communications ............................. 3
Occupational Certificate Total 3
Capstone Experience: HRPO 1311

Management Specialty (4BMGT-MGMT)

Certificate of Technology
All Campuses
The Management Specialty Certificate of Technology program is designed for students who desire to earn a credential after one year of study. All courses required for the certificate of technology apply toward an associate of applied science degree in Business Management.

First Term Credit
BCIS 1305 Business Computer Applications ...................... 3
HRPO 1311 Human Relations ........................................... 3
MRKG 1311 Principles of Marketing .................................. 3
ACNT 1303 Introduction to Accounting I or ACCT 2301 Principles of Financial Accounting .................................. 3
BMGT 1327 Principles of Management ................................ 3
Subtotal 15

Second Term Credit
HRPO 2301 Human Resources Management ..................... 3
BUSI 2304 Business Communications ............................. 3
BMGT 1309 Information and Project Management ............... 3
IBUS 2341 Intercultural Management ................................ 3
BMGT 2368 Practicum (or Field Experience) - Business Administration and Management, General .......................... 3
Subtotal 15

Certificate of Technology Total 30
Capstone Experience: BMGT 2369

Business Management (5BMGT-MGMT)

Level 2 Certificate
All Campuses
First Term Credit
BMGT 1327 Principles of Management ................................ 3
HRPO 1311 Human Relations ........................................... 3
BCIS 1305 Business Computer Applications ...................... 3
MRKG 1311 Principles of Marketing .................................. 3
ACNT 1303 Introduction to Accounting I or ACCT 2301 Principles of Financial Accounting .................................. 3
Subtotal 15

Second Term Credit
BMGT 2369 Practicum (or Field Experience) - Business Administration and Management, General .......................... 3
BUSG 2309 Small Business Management .......................... 3
BMGT 1313 Principles of Purchasing .................................. 3
BMGT 2309 Leadership .................................................... 3
BUSI 2301 Business Law .................................................. 3
Subtotal 15

Third Term Credit
BMGT 2369 Practicum (or Field Experience) - Business Administration and Management, General .......................... 3
BUSI 2301 Business Law .................................................. 3
BUSG 2309 Small Business Management .......................... 3
BMGT 2309 Leadership .................................................... 3
BMGT 1313 Principles of Purchasing .................................. 3
Subtotal 15

Fourth Term Credit
BMGT 2369 Practicum (or Field Experience) - Business Administration and Management, General .......................... 3
BUSI 2301 Business Law .................................................. 3
BUSG 2309 Small Business Management .......................... 3
BMGT 2309 Leadership .................................................... 3
BMGT 1313 Principles of Purchasing .................................. 3
Subtotal 15

Total 45
TECHNICAL PROGRAMS

MATH 1314 College Algebra or MATH 1333 Contemporary Mathematics for Technical Programs.......................... 3
*Economics or Psychology or Sociology................................. 3
ENGL 1301 Composition I ........................................................... 3
SPCH 1315 Public Speaking or
SPCH 1321 Business and Professional Speech ....................... 3
*Humanities or Fine Arts ............................................................ 3
Subtotal 15
Associate of Applied Science Degree Total 60
Capstone Experience: BMGT 2309

* Courses which satisfy this requirement are listed in the Humanities and Fine Arts,
and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

Marketing

Foundations of Marketing Specialty
(6BMGT-MRKG)

Occupational Certificate
All Campuses
First Term Credit
BMGT 1301 Supervision .......................................................... 3
HRPO 1311 Human Relations .................................................. 3
MRKG 1311 Principles of Marketing ........................................ 3
MRKG 2333 Principles of Selling ............................................. 3
MRKG 2312 e-Commerce Marketing ..................................... 3
Occupational Certificate Total 15
Capstone Experience: MRKG 2312

Business Office Technology

Office Assistant (MBOTOA)

Marketable Skills Achievement Award
All Campuses
The Office Assistant Marketable Skills Achievement Award is designed to provide students with entry-level office skills and to be a foundation for completing a higher-level certificate or degree. Keyboarding proficiency is recommended for this award, as well as all certificates and the associate of applied science degree in the business office technology program.

All courses in this award also apply toward the occupational certificate, certificate of technology, level 2 certificate and the associate of applied science degree in the business office technology program.

First Term Credit
BCIS 1305 Business Computer Applications ............................ 3
BMGT 1341 Business Ethics ............................................................ 3
POFT 1301 Business English ............................................................ 3
POFT 1319 Records and Information Management I .................. 3
Subtotal 12
Marketable Skill Achievement Award Total 12

Executive Administrative Assistant
(6BOFT-E)

Occupational Certificate
All Campuses
The Executive Administrative Assistant Occupational Certificate is designed to provide students with entry-level office skills, which include analyzing, classifying, and recording business transactions in a manual and computerized environment.

All courses in this certificate also apply toward the certificate of technology, level 2 certificate, and the associate of applied science degree in the business office technology program.

First Term Credit
ACNT 1303 Introduction to Accounting I .................................... 3
BCIS 1305 Business Computer Applications ............................ 3
BMGT 1341 Business Ethics ............................................................ 3
POFT 1301 Business English ............................................................ 3
POFT 1319 Records and Information Management I .................. 3
Subtotal 15
Occupational Certificate Total 15
Capstone Experience: POFT 1319

Executive Administrative Assistant
(4BOFT-E)

Certificate of Technology
All Campuses
These courses are required for the Executive Administrative Assistant Certificate of Technology and also qualify as the first two terms of the level 2 certificate and associate of applied science degree in the business office technology program.

After successfully completing the following courses, contact the Office of Enrollment Services to apply to receive this certificate.
of technology.

**First Term**

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<tr>
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<th>Credit</th>
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**Subtotal** 15

**Second Term**

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<td>POFT 1325 Business Math Using Technology</td>
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<td>POFT 2301 Intermediate Keyboarding</td>
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**Subtotal** 15

**Certificate of Technology Total** 30

**Capstone Experience: POFT 2301**

### Executive Administrative Assistant (5BOFT-E)

**Level 2 Certificate**

**All Campuses**

These courses are required for the Executive Administrative Level 2 Certificate and also qualify as the first three terms of the associate of applied science degree in the business office technology program.

After successfully completing the following courses, contact the Office of Enrollment Services to apply to receive this level 2 certificate.

### First Term

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### Second Term

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<td>BMGT 1309 Information and Project Management</td>
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</tr>
<tr>
<td>POFT 2364 Practicum (or Field Experience) - Administrative Assistant and Secretarial Science, General</td>
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</table>

**Subtotal** 15

**Level 2 Certificate Total** 45

**Capstone Experience: POFT 2364**

### Executive Administrative Assistant (3BOFT-EXE)

**Associate of Applied Science Degree**

**All Campuses**

This two-year business office technology program leading to an associate of applied science degree is for students preparing for jobs as executive administrative assistants in current and future office environments. Students desiring baccalaureate
degrees should see a counselor or the business office technology department chair prior to registration.

Keyboarding proficiency is recommended for this degree, as well as all of the certificates in the business office technology program. After successfully completing the following courses, contact the Office of Enrollment Services to apply to receive this associate of applied science degree.

**First Term**
- ACNT 1303 Introduction to Accounting I 
- BCIS 1305 Business Computer Applications 
- BMGT 1341 Business Ethics 
- POFT 1301 Business English 
- POFT 1319 Records and Information Management I

**Second Term**
- ACNT 1304 Introduction to Accounting II 
- POFI 1341 Computer Applications II 
- POFT 1325 Business Math Using Technology 
- POFT 1328 Business Presentations 
- POFT 2301 Intermediate Keyboarding

**Third Term**
- BUSI 1301 Introduction to Business 
- BUSI 2304 Business Communications 
- HRPO 1311 Human Relations 
- BMGT 1309 Information and Project Management 
- POFT 2304 Practicum

**Fourth Term**
- ENGL 1301 Composition I 
- *Psychology or Sociology* 
- SPCH 1315 Public Speaking or SPCH 1318 Interpersonal Communications or SPCH 1321 Business & Professional Speech 
- MATH 1333 Contemporary Mathematics or MATH 1314 College Algebra 
- *Humanities or Fine Arts*

**Associate of Applied Science Degree Total**

**Capstone Experience: POFT 2364**

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts, Social and Behavioral Sciences sections of the Transfer Core Curriculum.*

### Medical Office Support (EBOTM)

#### Enhanced Skills Certificate

**All Campuses**
The Medical Office Support Enhanced Skills Certificate is designed for students who have completed the Executive Administrative Assistant Associate of Applied Science Degree. This certificate is intended to prepare students for entry-level positions in medical office administrative/billing positions.

**Fifth Term**
- HPRS 2302 Medical Terminology for Allied Health 
- MRMT 1307 Medical Transcription I 
- POFM 1327 Medical Insurance or MDCA 1343 Medical Insurance 
- POFM 1317 Medical Administrative Support

**Enhanced Skills Certificate Total**

**Capstone Experience: POFM 1317**

### Chemical Technology

*See Process Technology*

### Child Development/Early Childhood Education

#### Child Development/Early Childhood Education (3CHID-ECE)

**Associate of Applied Science Degree**

**Central and North Campuses**

This curriculum is designed to develop basic skills, attitudes and competencies necessary for personnel to provide high-quality care and early education in preschools and child care centers.

**CDEC and TECA Student:**
The 80th Texas Legislature passed a law, Senate Bill 758, that as of September 1, 2007, requires a Federal Bureau of Investigation (FBI) fingerprint check for anyone who is currently required to have a background check in a child care center. This includes any person(s), including volunteers, who are counted in the child/caregiver ratio. Child care center employees/volunteers will have to have the background fingerprints once every two (2) years. Similar legislation, Senate Bill 9, passed setting 2011 as the deadline for public school districts to be in compliance. FBI fingerprinting allows the state to check an individual’s criminal record in 50 states, rather than just checking for a record within the state of Texas, which is all that our current system allows us to do. Additionally, it addresses concerns with individuals using fake names and social security numbers.

After some preliminary clarification, we have found that no student can be in any one location more than two (2) days a month, in which case they would not be a “frequent” in-contact person in the classroom. Our experience indicates that the area school districts are implementing criminal background checks in a variety of ways. A fee is required but may vary depending upon the center, program and school district. Based upon all this information, it is the student’s responsibility as a future teacher of children in the state of Texas to understand and comply with the requirements of each institution in which they may observe and/or intern.

For further clarification, discuss any concerns or issues with your professor, counselor and/or department chair.

**First Term**
- TECA 1354 Child Growth and Development 
- CDEC 1319 Child Guidance
## CDEC 2424
- CDEC 1321
- CDEC 1417
- CDEC 2341
- CDEC 2422

**Approved Electives**
- CDEC 2326 Administration of Programs for Children I
- CDEC 2328 Administration of Programs for Children II

---

## Second Term
**Credit**
- CDEC 1356 Emergent Literacy for Early Childhood
- TECA 1311 Educating Young Children
- CDEC 1413 Curriculum Resources for Early Childhood
- *Humanities or Fine Arts
- CDEC 1323 Observation and Assessment

**Subtotal** 16

## Third Term
**Credit**
- CDEC 2407 Math and Science for Early Childhood
- TECA 1303 Family, School and Community
- SPCH 1315 Public Speaking or SPCH 1318 Interpersonal Communication
- MATH 1314 College Algebra or MATH 1332 College Mathematics for Liberal Arts or MATH 1333 Contemporary Mathematics for Technical Programs
- CDEC 2326 Administration of Programs for Children I

**Subtotal** 16

## Fourth Term
**Credit**
- CDEC 2328 Administration of Programs for Children II
- CDEC 2366 Practicum (or Field Experience) - Child Care Provider/Assistant

**Subtotal** 12

## Associate of Applied Science Degree Total
42

## Capstone Experience: CDEC 2366

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

**Approved Electives**
- CDEC 1321
- CDEC 1417
- CDEC 2341
- CDEC 2422
- CDEC 2424

## Child Development/Early Childhood Education (4CHID-ECE)

**Certificate of Technology**

**Central and North Campuses**

### First Term **Credit**
- TECA 1354 Child Growth and Development
- CDEC 1319 Child Guidance
- TECA 1311 Educating Young Children
- CDEC 1413 Curriculum Resources for Early Childhood Programs

**Subtotal** 16

### Second Term **Credit**
- TECA 1318 Wellness of the Young Child
- CDEC 2407 Math and Science for Early Childhood
- CDEC 1458 Creative Arts for Early Childhood
- CDEC 2326 Administration of Programs for Children I or CDEC 2328 Administration of Programs for Children II

**Subtotal** 14

### Third Term **Credit**
- TECA 1303 Family, School and Community
- CDEC 1323 Observation and Assessment
- CDEC 1359 Children with Special Needs or Approved Elective

**Subtotal** 15

### Fourth Term **Credit**
- TECA 1318 Wellness of the Young Child
- CDEC 2328 Administration of Programs for Children II
- CDEC 2341 The School Age Child

**Subtotal** 16

## Certificate of Technology Total
31

## Capstone Experience: CDEC 1323

**Occupational Certificate**

**Central and North Campuses**

The Child Care Administrator’s Credential program has been designed to provide educational training for persons interested in teaching young children and/or directing child care centers. Upon successful completion of the 21 semester credit hours, the student will be awarded a credential approved by the Texas Department of Protective and Regulatory Services. To renew the Child Care Administrator’s Credential, a student must complete an additional...
child development course three years after course completion.

**First Term**  
TECA 1354 Child Growth and Development .................. 3  
CDEC 1319 Child Guidance ....................................... 3  
Approved Elective or  
CDEC 1458 Creative Arts for Early Childhood .................. 3  
**Subtotal** 9

**Second Term**  
CDEC 2326 Administrative Programs for Children I .............. 3  
CDEC 2328 Administrative Programs for Children II .............. 3  
CDEC 1359 Children with Special Needs ............................ 3  
CDEC 1321 The Infant and Toddler ................................ 3  
**Subtotal** 12

**Occupational Certificate Total** 21

**Capstone Experience: CDEC 2328**

Approved Electives:  
CDEC 1417  CDEC 2341  CDEC 2422  CDEC 2424

**Association Training for Director (6CHID-DIR)**

**Occupational Certificate**  
**Central and North Campuses**
The child development Association Training for Director  
Occupational Certificate program has been designed to provide educational training for persons interested in teaching young children and/or directing childcare centers. The certificate requires completion of 18 semester credit hours. Upon successful completion of the courses and upon receiving the Child Development Associate National Credential (CDA) from the Council of Early Childhood Recognition in Washington, D.C., the student meets director qualifications as set forth in the Texas Department of Protective and Regulatory Services MINIMUM STANDARDS and GUIDELINES.

**First Term**  
CDEC 1417 Child Development Associate Training I .............. 4  
CDEC 2422 Child Development Associate Training II .............. 4  
CDEC 2424 Child Development Associate Training III ............. 4  
CDEC 2326 Administrative Programs for Children I .............. 3  
CDEC 2328 Administrative Programs for Children II .............. 3  
**Occupational Certificate Total** 18

**Capstone Experience: CDEC 2328**

**Child Development Associate Training (MCHID)**

**Marketable Skills Achievement Award**  
**Central and North Campuses**
This award is designed to prepare childcare personnel for the Child Development Associate National Credential (CDA). The curriculum follows six competency areas established by the Council for Early Childhood Recognition. After completing three courses, an award is available by making application to the office of Enrollment Services.

**First Term**  
CDEC 1417 Child Development Associate Training I .............. 4  
CDEC 2422 Child Development Associate Training II .............. 4  
CDEC 2424 Child Development Associate Training III ............. 4  
**Marketable Skills Achievement Award Total** 12

**Computer Information Systems**

The computer information technology program is designed primarily for students seeking an occupational certificate, certificate of technology or associate of applied science (A.A.S.) degree. It is recommended that students complete the appropriate 18-19 credit hour core computer information technology (IT) occupational certificate before continuing into a certificate of technology or associate of applied science degree. The classes in the core IT occupational certificate will apply towards most of the other IT certificates and A.A.S. degrees.

The computer information technology (IT) curriculum prepares graduates for employment with organizations that use computers to process, manage, and communicate information. The College offers certificates and/or associate of applied science degrees in the following areas: applications programming, Web applications development, desktop support and Microsoft network administration, network administration Cisco, information technology security, and database design. Several degree specialties are available to the student based on his/her primary area of interest. In the applications programming specialty, emphasis is placed on the use of computer languages in the solution of business and scientific problems. The Web application development specialty addresses the design and development of Web pages for use on the World Wide Web. In desktop support and Microsoft network administration, a student can choose between a track with emphasis on desktop computer hardware and software support, or one with focus on the installation and maintenance of networks. In the network administration Cisco specialty, emphasis is on the design, implementation and administration of local and wide area router networks. There is also a database design certificate which emphasizes sound database design and implementation methods so that an organization’s critical data resources can be effectively utilized. This program focuses on learning basic skills which will assist them in the support and development of large database systems.

Two of the newer programs, CIT simulation and game programming and the CIT industry certification programs require students to apply for admission by contacting the department chair.
The CIT simulation and game programming certificate of technology is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing or multimedia programming.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study: Web page design and E-commerce, beginning and advanced network administration - Microsoft, beginning and advanced network administration – Cisco, advanced information technology security, database administration, and computer hardware support. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry certification certificate consists of only the courses required to obtain a specific certification.

Note for transfer students: Due to variations in requirements at four-year colleges and universities, a student desiring a bachelor's degree in computer science is strongly advised to consult a CIT department chair at San Jacinto College and at the institution to which they wish to transfer. This communication regarding transfer degree plans with both computer department heads will help to ensure the transition process is as smooth as possible. The field of study computer science located elsewhere in the Catalog may also be appropriate.

**Core Computer Information Technology (6IT-CORE)**

**Occupational Certificate**

**All Campuses**

It is recommended that students complete the following programming core occupational certificate before continuing into a programming Certificate of Technology or programming Associate of Applied Science degree.

**First Term**

**Credit**

ITSC 1305 Introduction to PC Operating Systems ..................... 3
ITSC 1309 Integrated Software Applications .......................... 3
ITSC 1325 Personal Computer Hardware ................................. 3
ITNW 1325 Fundamentals of Networking Technologies or
ITCC 1301 Cisco Exploration I Network Fundamentals .. 3
ITSE 1329 Programming Logic and Design or
ITSE 1331 Introduction to Visual BASIC Programming ... 3
ITSW 1307 Introduction to Database ........................................... 3

**Occupational Certificate Total** 18

**Capstone Experience:** ITSC 1325

---

**Computer Information Technology Industry Certification Program**

The CIT industry certification program is intended for students with industry experience in one or more for the following areas of study: Web page design and E-commerce, beginning and advanced network administration-Microsoft, beginning and advanced network administration-Cisco, advanced information technology security, database administration, and computer hardware support. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry certification certificate consists of only the courses required to obtain a specific certification.

**Beginning Network Administration CISCO Specialty (6IT-BC)**

**Occupational Certificate**

**All Campuses**

**First Term**

**Credit**

ITCC 1301 Cisco Exploration 1- Network Fundamentals ........ 3
ITCC 1404 Cisco Exploration 2 - Routing Protocols and Concepts .................................................................. 4
ITCC 2408 Cisco Exploration 3 - LAN Switching and Wireless .... 4
ITCC 2410 Cisco Exploration 4 - Accessing the WAN ............. 4

**Occupational Certificate Total** 15

**Capstone Experience:** ITCC 2410

---

**Advanced Information Technology Security Specialty (6IT-AITS)**

**Occupational Certificate**

**All Campuses**

**First Term**

**Credit**

ITSEY 2300 Operating System Security ................................. 3
ITSEY 2301 Firewalls and Network Security ............................. 3
ITSEY 2341 Security Management Practices .......................... 3

**Subtotal** 9

**Second Term**

**Credit**

---

**Computer Information Technology Fundamentals (6IT-FNDLS)**

**Occupational Certificate**

**All Campuses**

**First Term**

**Credit**

ITSC 1309 Integrated Software Applications | ................... 3
ITSC 1305 Introduction to PC Operating Systems ..................... 3
ITSC 1325 Personal Computer Hardware ................................. 3
ITCC 1301 Cisco Exploration 1 - Network Fundamentals or
ITNW 1325 Fundamentals of Networking Technologies . 3
### TECHNICAL PROGRAMS

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<td>ITSY 2343</td>
<td>Computer System Forensics</td>
<td>3</td>
</tr>
<tr>
<td>ITSY 2345</td>
<td>Network Defense and Countermeasures</td>
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**Occupational Certificate Total** 18

**Capstone Experience:** ITSY 2345

### Computer Hardware Support Specialty (6IT-CHS)

**Occupational Certificate**

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<th>Credit</th>
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**Capstone Experience:** ITSC 1321

### Applications Programming (4IT-APPL)

**Certificate of Technology**

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<td>ITSC 1321 Intermediate PC Operating Systems</td>
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**Second Term**

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<td>ITSE 1331 Introduction to Visual Basic Programming</td>
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<tr>
<td>ITSE 1307 Introduction to C++ Programming or COSC 1337 Programming Fundamentals</td>
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<td>ITSW 1307 Introduction to Database</td>
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**Subtotal** 9

**Third Term**

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<td>ITSE 2317 Java Programming</td>
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<td>ITSE 2331 Advanced C++ Programming or COSC 2336 Programming Fundamentals III</td>
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<td>ITSC 2364 Practicum (or Field Experience) - Computer and Information Sciences, General or Approved Elective</td>
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**Subtotal** 9

**Certificate of Technology Total** 30

**Capstone Experience:** ITSC 2364 or ITSE 2331 or COSC 2336

### Applications Programming Specialty (3IT-APPL)

**Certificate of Technology**

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**Approved Electives**

| IMED 1341 | IMED 1345 | ITCC 1404 | ITNW 1392 |
| ITNW 2352 | ITNW 2354 | ITSC 1319 | ITSC 1325 |
| ITSC 1391 | ITSC 2321 | ITSC 2337 | ITSE 1345 |
| ITSE 1371 | ITSE 1391 | ITSW 2334 | ITSY 1342 |

**Associate of Applied Science Degree**

**All Campuses**

Most employers require an associate degree for an entry-level positions in this field. A common job for this degree is Entry Level Programmer.

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<th>First Term</th>
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<tr>
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**Approved Electives**

| IMED 1341 | IMED 1345 | ITCC 1404 | ITNW 1392 |
| ITNW 2352 | ITNW 2354 | ITSC 1319 | ITSC 1325 |
| ITSC 1391 | ITSC 2321 | ITSC 2337 | ITSE 1345 |
| ITSE 1371 | ITSE 1391 | ITSW 2334 | ITSY 1342 |
Desktop Support and Microsoft Network

### Administration

**All Campuses**

The desktop support curriculum is designed to provide students with skills in desktop computer hardware and software support, and prepare for exams leading to industry certifications such as A+, Net+, and Microsoft Office Specialist (MOS). Students will learn to install, maintain, repair, replace and upgrade desktop computers. Common job titles for this certificate include: Desktop Support Specialist, Helpdesk Support, and PC Technician.

The Microsoft network administration curriculum is designed to provide students with basic skills needed to work as Microsoft computer network service technicians. Emphasis is placed upon the installation and maintenance of networks. A graduate will be able to administer and troubleshoot data and communication networks. These courses can lead to the Microsoft Certified Professional (MCP), and/or Microsoft Certified Systems Engineer (MCSE), Net+, and Server+ certifications. Common job titles for this certificate include network technician, network administrator, server administrator, and network operations specialist.

### Desktop Support and Microsoft Network Administration (4IT-DSMN)

#### Certificate of Technology

**All Campuses**

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#### Associate of Applied Science Degree Total

**60**

#### Capstone Experience: ITSC 2364 or ITSE 2331 or OSC 2336

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.*

Approved Electives:

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Science Elective for General Education Core:

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**Students must be Texas Success initiative (TSI) complete in order to graduate. Math level 9.**
Desktop Support and Microsoft Network Administration (3IT-DSMN)

Associate of Applied Science Degree

All Campuses

**First Term**

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<tr>
<td>ITSC 1305 Introduction to PC Operating Systems</td>
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<td>ITNW 1325 Fundamentals of Networking Technologies or ITCC 1301 Cisco Exploration 1 - Network Fundamentals</td>
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<tr>
<td>Speech</td>
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**Subtotal** 15

**Second Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ITSC 1321 Intermediate PC Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITSE 1329 Programming Logic and Design or ITSE 1331 Introduction to Visual Basic Programming</td>
<td>3</td>
</tr>
<tr>
<td>ITNW 1354 Implementing and Supporting Servers</td>
<td>3</td>
</tr>
<tr>
<td><strong>MATH 1333 College Mathematics for Technical Programs or MATH 1314 College Algebra or Science Elective</strong></td>
<td>3</td>
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<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
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**Subtotal** 15

**Third Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ITSC 1307 UNIX Operating System I or Approved Elective</td>
<td>3</td>
</tr>
<tr>
<td>ITSW 1307 Introduction to Database</td>
<td>3</td>
</tr>
<tr>
<td>ITSY 1342 Information Technology Security</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 2339 Personal Computer Help Desk Support or ITNW 1313 Computer Virtualization</td>
<td>3</td>
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<tr>
<td><strong>ENGL 2311 Technical and Business Writing or ENGL 1302 Composition II</strong></td>
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**Subtotal** 15

**Fourth Term**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ITSC 1307 UNIX Operating System I or Approved Elective</td>
<td>3</td>
</tr>
<tr>
<td>ITNW 1325 Internet/Intranet Server</td>
<td>3</td>
</tr>
<tr>
<td>*Social and Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>*Humanities or Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 2364 Practicum (or Field Experience) - Computer and Information Sciences, General or Approved Elective</td>
<td>3</td>
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</table>

**Subtotal** 15

**Associate of Applied Science Degree Total** 60

**Capstone Experience:** ITSC 2364 or ITNW 2354

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CPMT 2302</td>
<td>EECT 1307</td>
</tr>
<tr>
<td>IMED 1345</td>
<td>ITCC 1308</td>
</tr>
<tr>
<td>ITNW 1392</td>
<td>ITNW 2352</td>
</tr>
<tr>
<td>ITSC 2321</td>
<td>ITSE 1307</td>
</tr>
<tr>
<td>ITSW 2334</td>
<td>ITSW 2337</td>
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</table>

Science Elective for General Education Core

BIOL 1308/1108  BIOL 1309/1109
BIOL 1311/1111  BIOL 1313/1113
CHEM 1305/1105  CHEM 1311/1111
GEOL 1303/1103

**Students must be Texas Success Initiative (TSI) complete in order to graduate: Math level 9.**

Information Technology Security

With this certificate or associate of applied science degree, graduates can work in the network security field to help keep hackers, viruses, and terrorists from intruding and damaging computers. Common job titles include: Information Technology Security Officer, Network Operations Specialist, VPN Engineer, and Chief Security Officer.

Information Technology Security Specialty

(4IT-ITS)

**Certificate of Technology**

All Campuses

**First Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITSC 1305 Introduction to PC Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1309 Integrated Software Applications I</td>
<td>3</td>
</tr>
<tr>
<td>ITNW 1325 Fundamentals of Networking Technologies or ITCC 1301 Cisco Exploration 1 - Network Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td><strong>ITSY 1342 Information Technology Security</strong></td>
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<tr>
<td>Subtotal</td>
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**Second Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ITNW 1354 Implementing and Supporting Servers</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1307 UNIX Operating System I</td>
<td>3</td>
</tr>
<tr>
<td>ITSE 1329 Programming Logic and Design or ITSE 1331 Introduction to Visual Basic Programming</td>
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<tr>
<td>Subtotal</td>
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</table>

**Third Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ITSY 2301 Firewalls and Network Security</td>
<td>3</td>
</tr>
<tr>
<td>ITSY 2341 Security Management Practices</td>
<td>3</td>
</tr>
<tr>
<td>Approved Elective</td>
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</tbody>
</table>

**Subtotal** 9

**Certificate of Technology Total** 33

**Capstone Experience:** ITSY 2341

Approved Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ITNW 1345</td>
<td>ITSC 2321</td>
</tr>
<tr>
<td>ITNW 1392</td>
<td>ITSE 1307</td>
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<tr>
<td>ITSC 1321</td>
<td>ITSE 1345</td>
</tr>
<tr>
<td>ITSW 2334</td>
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</table>

Information Technology Security Specialty

(3IT-ITS)

**Associate of Applied Science Degree**

All Campuses

**First Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ITNW 1345</td>
<td>ITSC 2321</td>
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<tr>
<td>ITNW 1392</td>
<td>ITSE 1307</td>
</tr>
<tr>
<td>ITSE 1321</td>
<td>ITSE 1345</td>
</tr>
<tr>
<td>ITSW 2334</td>
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</tbody>
</table>
Simulation and Game Programming Certificate Program

Students must apply for admission to this program by contacting the department chair and verifying that they have the appropriate interest and drive to succeed in this program’s certificates.

The CIT simulation and game programming certificate program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing and/or multimedia programming.

**Introductory Game Design and Development (4IT-GAMS)**

**Occupational Certificate**

**All Campuses**

**First Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 1336 Programming Fundamentals I or ITSE 1329 Programming Logic and Design</td>
<td>3</td>
</tr>
<tr>
<td>GAME 1304 Level Design</td>
<td>3</td>
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<tr>
<td>GAME 1303 Introduction to Game Design and Development</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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**Second Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>COSC 1337 Programming Fundamentals II or ITSE 1307 Introduction to C++ Programming</td>
<td>3</td>
</tr>
<tr>
<td>Approved Elective</td>
<td>3</td>
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<tr>
<td>INEW 2340 Object Oriented Design - Game Design</td>
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**Occupational Certificate Total**

**18**

**Capstone Experience: INEW 2340**

<table>
<thead>
<tr>
<th>Approved Electives</th>
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<tbody>
<tr>
<td>IMED 1341 ITSC 1319 ITSE 1331 MATH 1314</td>
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</tbody>
</table>

**Simulation and Game Design (4IT-GAMS)**

**Certificate of Technology**

**All Campuses**

**First Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>COSC 1336 Programming Fundamentals I or ITSE 1329 Programming Logic and Design</td>
<td>3</td>
</tr>
<tr>
<td>GAME 1304 Level Design</td>
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<tr>
<td>GAME 1303 Introduction to Game Design and Development</td>
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**Second Term**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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<td>GAME 2341 Game Scripting</td>
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<td>ITSE 1371 Mobile Apps Development</td>
<td>3</td>
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<td>ITSC 1319 Internet/Web Page Development</td>
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**Third Term**

<table>
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<tr>
<th>Course</th>
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<tr>
<td>GAME 1343 Game and Simulation Programming I</td>
<td>3</td>
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<tr>
<td>GAME 2332 Project Development I</td>
<td>3</td>
</tr>
<tr>
<td>IMED 1345 Interactive Digital Media I</td>
<td>3</td>
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<td><strong>Subtotal</strong></td>
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</table>
Certificate of Technology Total 42

Capstone Experience: GAME 2332

Approved Electives:
GAME 2344    GAME 2359    IMED 1341    ITSE 1331
ITSE 1356    ITSE 1359    ITSE 2317    MATH 1314

Advanced Simulation and Game Design
(5IT-GAMS)

<table>
<thead>
<tr>
<th>Level 2 Certificate</th>
<th>Credit</th>
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<tbody>
<tr>
<td>All Campuses</td>
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<tr>
<td>First Term</td>
<td></td>
</tr>
<tr>
<td>COSC 1336 Programming Fundamentals I or ITSE 1329 Programming Logic and Design</td>
<td>3</td>
</tr>
<tr>
<td>GAME 1304 Level Design</td>
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<tr>
<td>GAME 1303 Introduction to Game Design and Development</td>
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<tr>
<td>COSC 1377 Programming Fundamentals II or ITSE 1307 Introduction to C++ Programming</td>
<td>3</td>
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<tr>
<td>Approved Elective</td>
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<td>Subtotal</td>
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<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>INEW 2340 Object-Oriented Design - Game Design</td>
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</tr>
<tr>
<td>COSC 2336 Programming Fundamentals III or ITSE 2331 Advanced C++ Programming</td>
<td>3</td>
</tr>
<tr>
<td>GAME 2341 Game Scripting</td>
<td>3</td>
</tr>
<tr>
<td>ITSE 1371 Mobile Apps Development</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1319 Internet/Web Page Development</td>
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<table>
<thead>
<tr>
<th>Third Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>GAME 1343 Game and Simulation Programming I</td>
<td>3</td>
</tr>
<tr>
<td>GAME 2332 Project Development I</td>
<td>3</td>
</tr>
<tr>
<td>IMED 1345 Interactive Digital Media I</td>
<td>3</td>
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<tr>
<td>Approved Elective</td>
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<table>
<thead>
<tr>
<th>Fourth Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ITSE 2345 Data Structures</td>
<td>3</td>
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<tr>
<td>GAME 2359 Game and Simulation Group Project</td>
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| Level 2 Certificate Total | 48 |

| Capstone Experience: GAME 2359 |

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<tbody>
<tr>
<td>GAME 2344    IMED 1341 ITSE 1331 ITSE 1356</td>
</tr>
<tr>
<td>ITSE 1359    ITSE 2317 MATH 1314</td>
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</table>

Network Administration - CISCO

The following curriculum is designed to provide the student with the skills needed to work as a Cisco network technician. Emphasis is placed upon the installation and maintenance of networks in business and industry. The graduate will be able to administer and troubleshoot Cisco networking equipment and networking infrastructure. The Cisco courses can lead to the certifications of Certified Cisco Network Associate (CCNA), Certified Cisco Network Professional (CCNP), and Comptia Net+. Common job titles for graduates of the certificate and/or degree include network technician, Cisco service representative, technical support specialist, and network system administration.

Network Administration CISCO Specialty
(4IT-NW-C)

<table>
<thead>
<tr>
<th>Certificate of Technology</th>
<th>All Campuses</th>
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</thead>
<tbody>
<tr>
<td>First Term</td>
<td>Credit</td>
</tr>
<tr>
<td>ITSC 1305 Introduction to PC Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1309 Integrated Software Applications I</td>
<td>3</td>
</tr>
<tr>
<td>ITCC 1301 Cisco Exploration 1 - Network Fundamentals</td>
<td>3</td>
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<tr>
<td>ITSC 1325 Personal Computer Hardware</td>
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<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credit</th>
</tr>
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<tbody>
<tr>
<td>ITCC 1404 Cisco Exploration 2 - Routing Protocols and Concepts</td>
<td>4</td>
</tr>
<tr>
<td>ITSC 1321 Intermediate PC Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITNW 1354 Implementing and Supporting Servers</td>
<td>3</td>
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<tr>
<td>ITSW 1307 Introduction to Database</td>
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<thead>
<tr>
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<th>Credit</th>
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<tbody>
<tr>
<td>ITCC 2408 Cisco Exploration 3 - LAN Switching and Wireless</td>
<td>4</td>
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<tr>
<td>ITCC 2410 Cisco Exploration 4 - Accessing the WAN</td>
<td>4</td>
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<tr>
<td>Approved Elective</td>
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<td>Subtotal</td>
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| Certificate of Technology Total | 36 |

| Capstone Experience: ITCC 2410 |

<table>
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<tr>
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<tbody>
<tr>
<td>CPMT 2302 ITNW 1353 ITSC 2364 EECT 1307</td>
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<tr>
<td>ITNW 1392 ITSE 1329 EECT 2337 ITSC 1319</td>
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<td>ITSE 1331 ITCC 1308 ITSC 1321 ITSY 1342</td>
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<td>ITNW 1345 ITSC 1391 ITSY 2300</td>
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Advanced Networking (5IT-ANW)

<table>
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<th>All Campuses</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Term</td>
<td>Credit</td>
</tr>
<tr>
<td>ITSC 1305 Introduction to PC Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1309 Integrated Software Applications I</td>
<td>3</td>
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</tbody>
</table>
ITNW 1325 Fundamentals of Networking Technologies or ITCC 1301 Cisco Exploration 1 - Network Fundamentals 3
ITSE 1329 Programming Logic and Design or ITSE 1331 Introduction to Visual Basic Programming...... 3
ITSY 1342 Information Technology Security ........................................ 3
Subtotal 15
Second Term  Credit
ITSC 1325 Personal Computer Hardware ........................................ 3
ITNW 1354 Implementing and Supporting Servers .............................. 3
ITSC 2339 Personal Computer Help Desk Support or ITNW 1313 Computer Virtualization........... 3
ITSW 1307 Introduction to Database ........................................ 3
ITSY 2300 Operating System Security ........................................ 3
Subtotal 15
Third Term  Credit
ITNW 2354 Internet/Intranet Server ........................................ 3
ITSC 1321 Intermediate PC Operating Systems ................................. 3
ITSC 2364 Practicum (or Field Experience) - Computer and Information Sciences, General or Approved Elective ........................................ 3
ITSY 2301 Firewalls and Network Security ........................................ 3
Subtotal 12
Fourth Term  Credit
ECT 2337 Wireless Telephony Systems ........................................ 3
ITCC 1308 Introduction to Voice over Internet protocol (VoIP) .......... 3
ITNW 1345 Implementing Network Directory Services ........................ 3
ITNW 1353 Supporting Network Server Infrastructure ....................... 3
Approved Elective............................................................................ 3
Subtotal 15
Level 2 Certificate Total 57
Capstone Experience: ITNW 1345

Approved Electives for the certificate are grouped into specialty blocks. Faculty will counsel students to fill their two approved elective spots with the courses from a single specialty block below:

Emerging Network: Desktop and Networking:
- ITSC 1307 and ITSE 1345
- CPMT 2302 and EECT 1307
- Networking:
- ITCC 1404 and ITCC 2408

Network Administration CISCO Specialty (3IT-NW-C)

Associate of Applied Science Degree
All Campuses
First Term  Credit
ITSC 1305 Introduction to PC Operating Systems .......................... 3
ITSC 1309 Integrated Software Applications I ............................... 3
Subtotal 12
Second Term  Credit
ITCC 1301 Cisco Exploration 1 - Network Fundamentals 3
Subtotal 12
Second Term  Credit
ITCC 1404 Cisco Exploration 2 - Routing Protocols and Concepts ........................................ 4
ITSC 1321 Intermediate PC Operating Systems ............................... 3
ITSE 1329 Programming Logic and Design or ITSE 1331 Introduction to Visual Basic Programming...... 3
**MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or Science Elective ........................................ 3
Speech............................................................................................ 3
Subtotal 16
Third Term  Credit
ITCC 2408 Cisco Exploration 3 - LAN Switching and Wireless ....4
ITSW 1307 Introduction to Database ........................................ 3
ITNW 1354 Implementing and Supporting Servers .............................. 3
*Social and Behavioral Sciences ................................................. 3
ENGL 1301 Composition I ......................................................... 3
Subtotal 16
Fourth Term  Credit
ITCC 2410 Cisco Exploration 4 - Accessing the WAN ................. 4
ITSE 1342 Information Technology Security ..................................... 3
ENGL 2311 Technical and Business Writing or ENGL 1302 Composition II ........................................ 3
*Humanities or Fine Arts................................................................. 3
ITSC 2364 Practicum (or Field Experience) - Computer and Information Sciences, General or Approved Elective ........................................ 3
Subtotal 16
Total 60

Associate of Applied Science Degree Total 60
Capstone Experience: ITSC 2364 or ITCC 2410

* Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

** Students must be Texas Success Initiative (TSI) complete in order to graduate: Math Level 9

Approved Electives:
- CPMT 2302
- ITNW 1392
- ITSC 2337
- EECT 1307
- ITSC 1307
- ITSE 1307
- EECT 2337
- ITSC 1319
- ITSE 1331
- ITCC 1308
- ITSC 1321
- ITSE 1345
- ITNW 1345
- ITSC 1391
- ITSE 1391
- INTW 1353
- ITSE 2321
- ITSW 2334

Science Electives for General Education Core:
- BIOL 1308/1108
- BIOL 1309/1109
- BIOL 1311/1111
- BIOL 1313/1113
- CHEM 1305/1105
- CHEM 1311/1111
- GEOL 1303/1103

Web Development

Web development is divided into two major areas: Web page programming and Web page design. Web page programming focuses on connecting Web pages to data sources and back-end data servers. Web page design focuses on the aesthetic layout and artistic style of the website.
TECHNICAL PROGRAMS

Web Page Design and Implementation Specialty (4IT-WBDI)

Certificate of Technology
All Campuses
The following trans-departmental curriculum between computer information technology and art is designed to provide the student with basic Web applications development skills. Emphasis is placed on artistic and graphic design with basic programming skills. Common job titles for this certificate include Webmaster, Web specialist, Web applications developer, and Web designer.

First Term
ITSC 1319 Internet/Web Page Development ......................... 3
IMED 1341 Interface Design or
ARTC 1302 Digital Imaging I ........................................... 3
IMED 1301 Introduction to Digital Media ............................ 3
ARTC 1325 Introduction to Computer Graphics ................. 3
Subtotal ........................................ 12

Second Term
ITSE 1359 Introduction to Scripting Languages ................... 3
IMED 1316 Web Design I .................................................. 3
ARTV 1303 Basic Animation or ARTV 1351 Digital Video ...... 3
Subtotal ........................................ 9

Third Term
ITSE 2313 Web Authoring ................................................ 3
IMED 1345 Interactive Digital Media I ............................... 3
ITSE 1339 Extensible Markup Language (XML) ............... 3
IMED 2315 Web Page Design II ......................................... 3
Subtotal ........................................ 12

Certificate of Technology Total ...................................... 33

Capstone Experience: ITSE 2313

Web Applications Development Specialty
(4IT-WBDV)

Certificate of Technology
All Campuses
The Web Applications Development Certificate of Technology is designed for students who desire to earn a credential after one year of study. All courses required for this certificate apply toward the Web Applications Development Associate of Applied Science degree. The following curriculum is designed to provide the student with basic web applications development skills. Emphasis is placed upon designing web applications to communicate with data sources and business systems. Common job titles for this certificate include Webmaster, Web Specialist, Web Application Developer, and Web Designer.

First Term
ITSC 1305 Introduction to PC Operating Systems ................ 3
ITSC 1309 Integrated Software Applications I .................... 3
ITSC 1319 Internet/Web Page Development ....................... 3
ITNW 1325 Fundamentals of Networking Technologies or
ITCC 1301 Cisco Exploration I - Network Fundamentals .... 3
Subtotal ........................................ 12

Second Term
ITSE 1356 Extensible Markup Language (XML) ............... 3
IMED 1341 Interface Design with Photoshop ...................... 3
ITSW 1307 Introduction to Database ................................ 3
Subtotal ........................................ 9

Third Term
ITSE 2313 Web Authoring ................................................ 3
IMED 1345 Interactive Digital Media I ............................... 3
ITSE 1339 Extensible Markup Language (XML) ............... 3
ITSC 2364 Practicum (or Field Experience) - Computer and
Information Sciences, General or Approved Elective .......... 3
Subtotal ........................................ 12

Certificate of Technology Total ...................................... 33

Capstone Experience: ITSC 2364 or ITSE 2313

Approved Electives
COSC 1337 ITCC 1404 ITNW 1392 ITNW 2354
ITSC 1325 ITSC 1391 ITSE 2321 ITSE 1307
ITSE 1329 ITSE 1331 ITSE 1345 ITSE 1391
ITSE 2317 ITSE 2331 ITSW 2334 ITSW 2337
ITSY 1342

Web Applications Development Specialty
(3IT-WBDV)

Associate of Applied Science Degree
All Campuses
The following degree is designed to provide the student with basic Web applications development skills. Common job titles for this degree include Webmaster, Web Specialist, Web Applications Developer, or Web Designer.
Emerging Network Technologies (AIT-EMRGN)

Advanced Technical Certificate
All Campuses
Students must complete at least one of the following A.A.S. degrees prior to enrolling in this certificate: Desktop Support and Microsoft Network Administration Specialty (3IT-DSMN), Network Administration CISCO Specialty (3IT-NW-C), and Information Technology Security (3IT-ITS).

First Term  Credit
ECT 2337 Wireless Telephony Systems .............................................. 3
ITNW 1353 Supporting Network Server Infrastructure .......................... 3
Approved Elective ............................................................................. 3
ITSC 1321 Intermediate PC Operating Systems ................................. 3
Approved Elective ............................................................................. 3
Subtotal .......................................................................................... 15

Second Term  Credit
ITCC 1308 Introduction to Voice over Internet Protocol (VoIP) ............. 3
ITNW 1345 Implementing Network Directory Services ......................... 3
ITSC 2364 Practicum (or field Experience) - Computer and Information Sciences, General or Approved Elective ........................ 3
Approved Elective ............................................................................. 3
Subtotal .......................................................................................... 15

Third Term  Credit
ECT 2337 Wireless Telephony Systems .............................................. 3
ITNW 1353 Supporting Network Server Infrastructure .......................... 3
Approved Elective ............................................................................. 3
ENGL 1301 Technical and Business Writing or ENGL 1302 Composition II ................................................................. 3
Subtotal .......................................................................................... 15

Fourth Term  Credit
ITCC 1368 Introduction to Oracle SQL or Approved Elective .................... 3
ITSE 1371 Mobile Apps Development ................................................. 3
ITSE 1356 Extensible Markup Language (XML) .................................. 3
*Humanities or Fine Arts ................................................................... 3
Science Elective for General Education Core ......................................... 3
Approved Elective ............................................................................. 3
Subtotal .......................................................................................... 15

Capstone Experience: ITSC 2364 or ITSE 2313
*Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

Approved Electives
COSC 1337  ITCC 1404  ITNW 1392  ITNW 2354
ITSC 1325  ITSC 2325  ITSE 1307  ITSE 1329
ITSE 1331  ITSC 1391  ITSW 2334  ITSW 2337
ITSE 1342

Emerging Network Technologies

Science Elective for General Education Core
BIOL 1308/1108  BIOL 1309/1109  BIOL 1311/1111
BIOL 1313/1113  CHEM 1305/1105  CHEM 1311/1111
GEOL 1303/1103

**Students must be Texas Success Initiative (TSI) complete in order to graduate: Math level 9.
First Term Credit
ITNW 1313 Computer Virtualization ........................................... 3
ITSY 2301 Firewalls and Network Security .................................. 3
ITNW 1353 Supporting Network Server Infrastructure .......... 3
ITNW 1345 Implementing Network Directory Services ........ 3

Enhanced Skills Certificate Total  12

Capstone Experience: ITNW 1345

Construction Management

The purpose of the construction management program is to prepare graduates in the field of commercial and industrial construction management. Graduates will assist in the planning, direction, and coordination of activities concerned with the construction and maintenance of commercial and industrial structures and facilities. They will participate in the conceptual development and organization of a construction project, pricing and procurement, scheduling and overseeing of its organization, estimating, and the implementation of the project. This includes material familiarization; specialized construction fields such as civil, carpentry, mechanical, and piping and plumbing systems; electrical/electronic; building envelopes; legal contracts; codes; and permit processes through state and local identities with an understanding of the green elements of each.

The program will also prepare students to sit for the Occupational Health and Safety Administration (OSHA) 10-hour certification exam and the U.S. Green Building Council LEED (Leadership in Energy and Environmental Design) Green Associate Certification Exam.

Certificate of Technology (4CSTR-MGMT)

North Campus

First Term Credit
CNBT 1210 Basic Construction Safety ........................................... 2
CNBT 1311 Construction Methods & Materials I ........................ 3
CNBT 2310 Commercial/Industrial Blueprint Reading ........ 3
CNBT 2342 Construction Management I .................................. 3

Subtotal  11

Second Term Credit
CNBT 1315 Field Engineering I .................................................. 3
CNBT 1446 Construction Estimating I ................................. 4
CNBT 2315 Construction Specifications and Contracts .......... 3
CNBT 1442 Building Codes and Inspections .......................... 4

Subtotal  14

Third Term Credit
CNBT 2435 Computer-Aided Construction Scheduling .......... 4
CNBT 2440 Mechanical, Plumbing, and Electrical Systems in Construction II ........................................... 4
CNBT 2366 Practicum-Construction Technology or
CNBT 2344 Construction Management II ............................. 3

Subtotal  11

Certificate of Technology Total  36

Capstone Experience: CNBT 2366 or CNBT 2344

Construction Management Technology

(3CSTR-MGMT)

North Campus

Pre-requisite Credit
ITSC 1309 Applications I or
BCIS 1305 Business Computer Applications ......................... 3

Subtotal  3

First Term Credit
Math 1333 Contemporary Mathematics for
Technical Programs or
MATH 1314 College Algebra or higher ................................. 3
CNBT 1210 Basic Construction Safety ........................................ 2
CNBT 1311 Construction Methods and Materials I ................. 3
CNBT 2310 Commercial/Industrial Blueprint Reading .......... 3
CNBT 2342 Construction Management I ............................... 3

Subtotal  14

Second Term Credit
CNBT 1315 Field Engineering I ................................................ 3
CNBT 2315 Construction Specifications and Contracts .......... 3
CNBT 1446 Construction Estimating I ...................................... 4
ENGL 1301 Composition I ..................................................... 3

Subtotal  13

Third Term Credit
CNBT 2435 Computer-Aided Construction Scheduling .......... 4
CNBT 2440 Mechanical, Plumbing and Electrical Systems in Construction II ........................................... 4
CNBT 1442 Building Codes and Inspections .......................... 4
CNBT 2366 Practicum-Construction Technology or
CNBT 2344 Construction Management II ............................. 3

Subtotal  15

Fourth Term Credit
Speech ....................................................... 3
*Social and Behavioral Sciences ........................................... 3
*Humanities or Fine Arts .................................................... 3
BMGT 1301 Supervision ..................................................... 3
ENGL 2311 Technical and Business Writing .......................... 3

Subtotal  15

Associate of Applied Science Degree Total  60

Capstone Experience: CNBT 2366 or CNBT 2344

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts and Social and Behavioral Sciences sections of the transfer Core Curriculum.

Cosmetology

Eyelash Extension (MCOSM-ELE)

Marketable Skills Achievement Award
All Campuses

The eyelash extension course is designed to provide the student with the basic knowledge and skills to pass the Texas Department...
of Licensing and Regulation Eyelash Extension License Examination for licensing and for entry-level employment in professional salons. Emphasis is placed on the application of all learning skills and knowledge in a simulated salon. All key aspects of safety procedures, application, and theory of eyelash extensions are addressed.

First Term
CSME 1308 Principles of Eyelash Extensions 3
CSME 1409 Application of Eyelash Extensions 4
CSME 1507 Orientation to Eyelash Extensions 5
Subtotal 12
Marketable Skills Achievement Award Total 12

Verification of workplace competencies: Eligible for the credentialing exam – Texas Department of Licensing and Regulation Eyelash Extension Specialty Licensure Exam

Hair Weaving and Braiding (MCOSM-HWV)

Marketable Skills Achievement Award
North Campus
The hair weaving and braiding marketable skills achievement award program is designed to prepare the student with the skills and knowledge required for performing hair weaving and braiding services and to gain entry-level employment in a professional salon. Students must pass the Texas Department of Licensing and Regulation Hair Weaving and Braiding License Examination.

First Term
CSME 1457 Application of Hair Weaving and Braiding 4
CSME 1552 Orientation to Hair Weaving and Braiding 5
Subtotal 9

Verification of workplace competencies: Eligible for the credentialing exam – Texas Department of Licensing and Regulation Cosmetology Hair Weaving and Braiding License Examination

Nail Technician (6COSM-NAI)

Occupational Certificate
Central Campus
The nail technician occupational certificate program is designed to provide the student with the basic manicuring skills and knowledge required to pass the Texas Department of Licensing and Regulation Examination for licensing and to gain entry-level employment in a professional salon. Emphasis is on the application of all learned skills and theoretical knowledge in a simulated salon. All key aspects of the nail profession are addressed.

First Term
CSME 1330 Orientation to Nail Technology .............. 3
CSME 1531 Principles of Nail Technology I ............... 5
CSME 1541 Principles of Nail Technology II ............. 5
CSME 2430 Nail Enhancement ............................... 4
Subtotal 17

Verification of Workplace Competencies: Eligible for the Credentialing Exam – Texas Department of Licensing and Regulation Manicurist License Examination

Facial Specialist (4COSM-FAC)

Certificate of Technology
North Campus
The Facial Specialist Certificate of Technology is designed to prepare the student with the skills and knowledge required for an entry level position in the facial/esthetics profession. Students must pass all six (6) courses to be eligible to take the Texas Department of Licensing and Regulation Esthetician (Facial) License Examination for licensure.

First Term
CSME 1520 Orientation to Facial Specialist 5
CSME 1421 Principles of Facial and Skin Care Technology I 4
CSME 1302 Applications of Facial and Skin Care Technology I .......................................................... 3
Subtotal 12

Second Term
CSME 1545 Principles of Facial and Skin Care Technology II ............................................................. 5
CSME 2431 Principles of Skin Care Technology III ........ 4
CSME 2333 Applications of Facial and Skin Care Technology II ........................................................... 3
Subtotal 12

Certificate of Technology Total 24

Verification of workplace competencies: Eligible for the credentialing exam – Texas Department of Licensing and Regulation Esthetician/Facial Specialist Licensure Examination

Cosmetology High School Operator Dual Credit (4COSM-OPHS)

Certificate of Technology
All Campuses
The cosmetology high school operator dual credit certificate program is a course of study designed to meet the needs of high school students who desire to enter the beauty industry in a minimum of time. The program will provide the
student with the technical background and experience necessary to develop the skills and theoretical knowledge required to pass the Texas Department of Licensing and Regulations Examination for licensing and to gain entry-level employment in professional salons. Part-time students can complete the certificate of technology in two years. All key aspects of the cosmetology profession are addressed.

**First Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 1310 Introduction to Haircutting Related Theory</td>
<td>3</td>
</tr>
<tr>
<td>CSME 1505 Fundamentals of Cosmetology</td>
<td>5</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

**Second Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 1553 Chemical Reformation and Related Theory</td>
<td>5</td>
</tr>
<tr>
<td>CSME 1354 Artistry of Hair Design I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

**Third Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 1355 Artistry of Hair Design II</td>
<td>3</td>
</tr>
<tr>
<td>CSME 2501 Principles of Hair Coloring and Related Theory</td>
<td>5</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

**Fourth Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 2251 Preparation for the State Licensing Written Examination</td>
<td>2</td>
</tr>
<tr>
<td>CSME 2343 Salon Development</td>
<td>3</td>
</tr>
<tr>
<td>CSME 2539 Advanced Hair Design</td>
<td>5</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

**Certificate of Technology Totals**

<table>
<thead>
<tr>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
</tr>
</tbody>
</table>

Verification of workplace competencies; Eligible for the credentialing exam – Texas Department of Licensing and Regulation Cosmetology Operator Licensure Examination

**Cosmetology Operator (4COSM-OP)**

**Certificate of Technology All Campuses**

The Cosmetology Operator Certificate of Technology is a course of study designed to meet the needs of those students who desire to enter the beauty industry in a minimum amount of time. The program will provide the student with the technical background and experience necessary to develop the skills and theoretical knowledge required to pass the Texas Department of Licensing and Regulations Examination for licensing and to gain entry-level employment in professional salons. Full-time students can earn the certificate of technology in one year. All key aspects of the cosmetology profession are addressed.

**First Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 1310 Introduction to Haircutting Related Theory</td>
<td>3</td>
</tr>
<tr>
<td>CSME 1354 Artistry of Hair Design I</td>
<td>3</td>
</tr>
<tr>
<td>CSME 1501 Orientation to Cosmetology or</td>
<td></td>
</tr>
<tr>
<td>CSME 1505 Fundamentals of Cosmetology</td>
<td>5</td>
</tr>
<tr>
<td>CSME 1553 Chemical Reformation and Related Theory</td>
<td>5</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>16</strong></td>
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</tbody>
</table>

**Second Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 1248 Principles of Skin Care</td>
<td>2</td>
</tr>
<tr>
<td>CSME 2310 Advanced Haircutting and Related Theory</td>
<td>3</td>
</tr>
<tr>
<td>CSME 2501 Principles of Hair Coloring and Related Theory</td>
<td>5</td>
</tr>
<tr>
<td>CSME 2350 Preparation for the State Licensing Written Examination</td>
<td>3</td>
</tr>
<tr>
<td>CSME 1355 Artistry of Hair Design II or</td>
<td></td>
</tr>
<tr>
<td>CSME 2337 Advanced Cosmetology Techniques</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Third Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 2251 Preparation for the State Licensing Practical Examination</td>
<td>2</td>
</tr>
<tr>
<td>CSME 2343 Salon Development</td>
<td>3</td>
</tr>
<tr>
<td>CSME 2539 Advanced Hair Design</td>
<td>5</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

**Certificate of Technology Total**

<table>
<thead>
<tr>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>42</td>
</tr>
</tbody>
</table>

Verification of Workplace Competencies: Eligible for the credentialing exam – Texas Department of Licensing and Regulation Cosmetology Operator Examination

**Cosmetology Operator (3COSM-OP)**

**Associate of Applied Science Degree All Campuses**

The cosmetology operator curriculum is designed to provide the student with basic knowledge and skills required to pass the Texas Department of Licensing and Regulations Examination for licensing and for entry-level employment in professional salons. Emphasis is placed on using these skills and knowledge in a simulated salon. All key aspects of the beauty profession are addressed.
First Term  Credit
CSME 1310 Introduction to Haircutting Related Theory .......... 3
CSME 1354 Artistry of Hair Design I ........................................ 3
CSME 1501 Orientation to Cosmetology or
CSME 1505 Fundamentals of Cosmetology ......................... 5
CSME 1553 Chemical Reformation and Related Theory .......... 5
Subtotal 16

Second Term  Credit
CSME 1248 Principles of Skin Care ........................................ 2
CSME 1355 Artistry of Hair Design II ........................................ 3
CSME 2310 Advanced Haircutting and Related Theory .......... 3
CSME 2350 Preparation for the State Licensing
Written Examination ........................................................... 3
CSME 2501 Principles of Hair Coloring and
Related Theory ................................................................... 5
Subtotal 16

PostY1Summer  Credit
CSME 2251 Preparation for the State Licensing
Practical Examination ............................................................ 2
CSME 2343 Salon Development ............................................... 3
CSME 2539 Advanced Hair Design ........................................... 5
Subtotal 10

Third Term  Credit
BCIS 1305 Business Computer Applications or
ITSC 1309 Integrated Software Applications I ...................... 3
ENGL 1301 Composition I ...................................................... 3
Subtotal 6

Fourth Term  Credit
Math 1333 Contemporary Mathematics for
Technical Programs or MATH 1314 College Algebra
or higher .............................................................................. 3
Speech .................................................................................. 3
Humanities or Fine Arts ......................................................... 3
Social and Behavioral Sciences .............................................. 3
Subtotal 12

Associate of Applied Science Degree Total 60

Verification of Workplace Competencies; Eligible for the
Credentialing Exam – Texas Department of Licensing and
Regulation Cosmetology Operator Examination.

Cosmetology Instructor (6COSM-INST) Certificate of Technology
All Campuses
The cosmetology instructor certificate of technology program is
designed to meet the needs of those students who desire to enter the
world of education in a minimum amount of time. This program
will provide the student with the training necessary to provide
proper instruction in varied classroom situations. Emphasis will be
on classroom management, curriculum development, evaluation
methods, and the use of media in the classroom.

Occupational Certificate
South Campus
The cosmetology instructor occupational certificate program
is the fast track to enter the world of education. The program
will provide the student with the training necessary to provide
innovative classroom management, curriculum development, and
preparation for the Texas Department of Licensing and Regulation
(TDLR) Cosmetology Instructor licensure exam.
Before registering for the cosmetology instructor courses listed below, the student must have a valid Texas Department of Licensing and Regulation License, and must provide evidence of a high school diploma or GED equivalent. Two years of work experience is preferred.

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>CSME 1435 Orientation to the Instruction of Cosmetology</td>
<td>4</td>
</tr>
<tr>
<td>CSME 1534 Cosmetology Instructor I</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 2414 Cosmetology Instructor II</td>
<td>4</td>
</tr>
<tr>
<td>CSME 2549 Cosmetology Instructor III</td>
<td>5</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 2445 Instructional Theory and Clinic Operations</td>
<td>4</td>
</tr>
<tr>
<td>CSME 2544 Cosmetology Instructor IV</td>
<td>5</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Verification of workplace competencies: Eligible for the Texas Cosmetology Commission Instructor Licensure Exam Program

**Cosmetology Instructor (3COSM-INST)**

**Associate of Applied Science Degree**

**All Campuses**

This program is designed to provide classroom management and instructional training for licensed cosmetologists, manicurists, or facialists who already possess skills in their respective fields. This program will train students for professional positions as cosmetology instructors in the private and public sectors of education.

To enroll in the cosmetology instructor courses listed below, the student must be 18 years of age, have a valid Texas Department of Licensing and Regulation License, and provide evidence of a high school diploma or GED equivalent. Two years work experience is preferred.

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 1435 Orientation to Cosmetology</td>
<td>4</td>
</tr>
<tr>
<td>CSME 1534 Cosmetology Instructor I</td>
<td>5</td>
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<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>BUSG 2309 Small Business Management</td>
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</table>

<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 2414 Cosmetology Instructor II</td>
<td>4</td>
</tr>
<tr>
<td>CSME 2549 Cosmetology Instructor III</td>
<td>5</td>
</tr>
<tr>
<td>HRPO 1311 Human Relations or Free Elective</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1302 Composition II or ENGL 2311 Technical and Business Writing</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>15</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Third Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 2445 Instructional Theory and Clinic Operation</td>
<td>4</td>
</tr>
<tr>
<td>CSME 2544 Cosmetology Instructor IV</td>
<td>5</td>
</tr>
<tr>
<td>ITSC 1309 Integrate Software Applications I or BCIS 1305 Business Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>12</strong></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Fourth Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>*Social and Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Approved Electives</td>
<td>3</td>
</tr>
<tr>
<td>*Humanities or Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Approved Electives</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Associate of Applied Science Degree Total** **60**

Verification of workplace competencies: Eligible for the credentialing exam – Texas Department of Licensing and Regulation Cosmetology Instructor License Examination

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.*

Approved Electives

- ARTS 1316
- BMGT 1301
- CSME 1308
- CSME 1330
- CSME 1409
- CSME 1421
- CSME 1457
- CSME 1507
- CSME 1520
- CSME 1531
- CSME 1541
- CSME 1545
- CSME 1552
- CSME 2430
- CSME 2431

**Criminal Justice**

**Associate of Arts Degree**

**University Transfer Plan**

**Central and North Campuses**

Students who will pursue a four-year degree should enroll in the associate of arts (A.A.) degree plan for a maximum of transferable credit. The A.A. is a 60-credit hour program, which may include the following courses in the major:

Criminal Justice (15 semester hours)

- CRJ 1301
- CRJ 1306
- CRJ 1310
- CRJ 2313
- CRJ 2328
All students considering transfer should consult with a counselor regarding the specific requirements of various universities for this major.

**Criminal Justice Core (6CRIJ-CORE)**

**Occupational Certificate**

**Central and North Campuses**

The criminal justice department at San Jacinto Community College District has voluntarily implemented the Peace Officer Training Articulation Advisory committee (POTAAC) agreement to articulate 18 hours of college credit for licensed peace officers in Texas that meet the following qualifications:

- Successfully completed an approved 560-hour law enforcement training program.
- Successfully passed the Texas Commission on Law Enforcement Officers Standards and Education (TCLEOSE) licensing exam after 1983.
- Successfully completed six (6) semester hours of criminal justice at San Jacinto Community College District.

Interested and qualified students should contact the department chair prior to enrollment.

The law enforcement option is for those students planning careers in criminal law, federal, state or local law enforcement, and for other students interested in learning about the operation of the criminal justice system.

**First Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>CRIJ 1301 or CJSA 1322</td>
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</tr>
<tr>
<td>CRIJ 1306 or CJSA 1313</td>
<td>3</td>
</tr>
<tr>
<td>CRIJ 1310 or CJSA 1327</td>
<td>3</td>
</tr>
<tr>
<td>CRIJ 2328 or CJSA 1359</td>
<td>3</td>
</tr>
<tr>
<td>CRIJ 2323 or CJSA 2300</td>
<td>3</td>
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</tbody>
</table>

**Occupational Certificate Total**

15

**Capstone Experience: CRIJ 1306 or CJSA 1313**

**Criminal Justice (4CRIJ)**

**Certificate of Technology**

**Central and North Campuses**

**First Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
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<td>CRIJ 1301 or CJSA 1322</td>
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Subtotal 15

**Second Term**

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**Criminal Justice Professions**

3

CRIJ 2323 or CJSA 2300 Legal Aspects of Law Enforcement

Approved Elective

Approved Elective

Subtotal 3

**Certificate of Technology Total**

30

**Capstone Experience: CRIJ 2323 or CJSA 2300**

**Approved Electives**

Students seeking job titles of Crime Scene or Evidence Technician:

CASA 1308  CJSA 2323

Students seeking job titles of Police or Police Service:

CJLE 1333  CJSA 1351

Students seeking job titles of Probation/Parole or Social Work:

CRIJ 1313  CJSA 1351  CRIJ 2301

**Criminal Justice (5CRIJ)**

**Level 2 Certificate of Technology**

**Central and North Campuses**

**First Term**

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Subtotal 15

**Second Term**

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<tbody>
<tr>
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**Criminal Justice Professions**

3

CRIJ 1307 or CJSA 1312 Crime in America

Approved Elective

Approved Elective

Approved Elective

Subtotal 3

**Certificate of Technology Total**

30

**Capstone Experience: CRIJ 1306 or CJSA 1313**
### TECHNICAL PROGRAMS

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<td>Correctional Systems and Practices</td>
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<td>Legal Aspects of Law Enforcement</td>
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| Level 2 Certificate of Technology Total | 45 |

### Capstone Experience: CRIJ 2323 or CJSA 2300

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<td>Correctional Systems and Practices</td>
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<td>Introduction to Sociology</td>
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<td>General Psychology</td>
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<td>Crime in America</td>
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<td>Speech</td>
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### Associate of Applied Science Degree Total | 60

---

### Culinary Arts (4CULA) Certificate of Technology

North Campus

North Campus' culinary arts program is ACF (American Culinary Federation) certified. The ACF is widely recognized as the most prestigious accreditation in the nation for a culinary education program. Upon graduation, students will be certified...
ACF Culinarians.

**First Term**  
RSTO 1313 Hospitality Supervision ........................................... 3
CHEF 1205 Sanitation and Safety ............................................. 2
CHEF 1401 Basic Food Preparation ......................................... 4
PSTR 1301 Fundamentals of Baking ....................................... 3
IFWA 2446 Quantity Procedures ........................................... 4

**Subtotal**  
16

**Second Term**  
CHEF 1345 International Cuisine ........................................... 3
RSTO 2431 Food Service Management .................................. 4
RSTO 2301 Principles of Food and Beverage Controls ........... 3
PSTR 2331 Advanced Pastry Shop .......................................... 3
CHEF 1314 A La Carte Cooking ........................................... 3

**Subtotal**  
16

**PostY1Summer**  
IFWA 1318 Nutrition for Food Service Professional ............. 3
CHEF 1410 Garde Manger .................................................. 4
CHEF 2365 Practicum (or Field Experience)-Culinary Arts/Chef Training ........................................... 3

**Subtotal**  
10

**Third Term**  
ENGL 1301 Composition I ................................................ 3
Speech ................................................................. 3
MATH 1314 College Algebra or MATH 1333 Contemporary Mathematics for Technical Programs ........................................... 3
*Humanities or Fine Arts ............................................... 3
*Socila and Behavioral Sciences .......................................... 3

**Subtotal**  
12

**Fourth Term**  
*Marks which satisfy this requirement are listed in the Humanities and Fine Arts and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

**Culinary Arts - Chef Training (MCULA-C)**

**Marketable Skills Achievement Award Central Campus**  
**First Term**  
CHEF 1205 Sanitation and Safety ........................................... 2
CHEF 1401 Basic Food Preparation ......................................... 4
PSTR 1301 Fundamentals of Baking ....................................... 3
RSTO 1301 Beverage Management ......................................... 3

**Marketable Skills Achievement Award Total**  
12

**Culinary Arts - Chef Training (6CULA-C)**

**Occupational Certificate Central Campus**  
**First Term**  
CHEF 1205 Sanitation and Safety ........................................... 2
CHEF 1401 Basic Food Preparation ......................................... 4
PSTR 1301 Fundamentals of Baking ....................................... 3
RSTO 1301 Beverage Management ......................................... 3
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**Chef Training (4CULA-C)**

**Certificate of Technology**

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<tr>
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<tr>
<td>RSTO 1325 Purchasing for Hospitality Operations</td>
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<tr>
<td>RSTO 1313 Hospitality Supervision</td>
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</tr>
<tr>
<td>CHEF 2302 Saucier</td>
<td>3</td>
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<tr>
<td>RSTO 2301 Principles of Food and Beverage Controls</td>
<td>3</td>
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<tr>
<td>CHEF 2365 Practicum (or Field Experience)-Culinary Arts/Chef Training</td>
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**Culinary Arts - Chef Training (5CULA-C)**

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<tr>
<td>CHEF 1205 Sanitation and Safety</td>
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<tr>
<td>RSTO 1301 Beverage Management</td>
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<td>HECO 1322 Nutrition and Diet Therapy</td>
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<tr>
<td>RSTO 1325 Purchasing for Hospitality Operations</td>
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<td>RSTO 1313 Hospitality Supervision</td>
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<td>CHEF 2302 Saucier</td>
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<td>RSTO 2301 Principles of Food and Beverage Controls</td>
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<tr>
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</table>

Certification from the American Culinary Federation is one of the most prestigious honors that a learning culinarian can obtain. Our programs offered on Central Campus, including Culinary Arts-Chef Training and Restaurant Management, are recognized as a few of the select programs in the Houston area that have obtained the accreditation. Our goal is to provide the highest level of instruction to give students knowledge, skills, and behaviors needed to transition into the next level of education or a beneficial career in the ever-growing hospitality industry. The accreditation received from the American Culinary Federation Educational Foundation allows us to adhere to the standards set forth by today’s leading chefs and restaurant operators, and also allows students who graduate to do so with the official title of Certified Culinarian.
Educational Foundation allows us to adhere to the standards set for accreditation received from the American Culinary Federation. The behaviors needed to transition into the next level of education or highest level of instruction to give students knowledge, skills, and marketable skills. Certification from the American Culinary Federation is one of the most prestigious honors that a learning culinarian can obtain. Our programs offered on Central Campus, including Culinary Arts-Chef Training and Restaurant Management, are recognized as a few of the select programs in the Houston area that have obtained the accreditation. Our goal is to provide the highest level of instruction to give students knowledge, skills, and behaviors needed to transition into the next level of education or a beneficial career in the ever-growing hospitality industry. The accreditation received from the American Culinary Federation Educational Foundation allows us to adhere to the standards set forth by today’s leading chefs and restaurant operators, and also allows students who graduate to do so with the official title of Certified Culinarian.

**First Term**

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CHEF 1205 Sanitation and Safety</td>
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<td>PSTR 1301 Fundamentals of Baking</td>
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<td>RSTO 1313 Hospitality Supervision</td>
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<td>IFWA 1318 Nutrition for the Food Service Professional or HECO 1322 Nutrition and Diet Therapy</td>
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**Subtotal** 16

**Second Term**

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<tr>
<td>RSTO 2301 Principles of Food and Beverage Controls</td>
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**Subtotal** 14

**Third Term**

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<td>RSTO 2405 Management of Food Production and Service</td>
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**Subtotal** 15

**Fourth Term**

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<td>ENGL 1301 Composition I</td>
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<td>SPCH 1315 Public Speaking or SPCH 1321 Business or Professional Speech</td>
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**Subtotal** 15

**Associate of Applied Science Degree Total** 60

**Capstone Experience: IFWA 2341**

* College Preparatory courses (those courses which have numbers beginning with (0) do not apply toward the associate degree.

** Courses which satisfy this requirement are listed in the Humanities and Fine Arts and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

***Students must be Texas Success Initiative (TSI) complete in order to graduate: Math level 9.

**Culinary Arts - Healthy Cuisine (4CULA-HCUI)**

**Certificate of Technology**

**Central Campus**

Certification from the American Culinary Federation is one of the most prestigious honors that a learning culinarian can obtain. Our programs offered on Central Campus, including Culinary Arts-Chef Training and Restaurant Management, are recognized as a few of the select programs in the Houston area that have obtained the accreditation. Our goal is to provide the highest level of instruction to give students knowledge, skills, and behaviors needed to transition into the next level of education or a beneficial career in the ever-growing hospitality industry. The accreditation received from the American Culinary Federation Educational Foundation allows us to adhere to the standards set forth by today’s leading chefs and restaurant operators, and also allows students who graduate to do so with the official title of Certified Culinarian.

**First Term**

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**Subtotal** 14

**Certificate of Technology Total** 30

**Capstone Experience: CHEF 2365**

Pastry and Garde Manger (MCULA-P)

**Marketable Skills Achievement Award North Campus**

**First Term**

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**Second Term**

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**PostY1Summer**

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**Subtotal** 4

**Marketable Skills Achievement Award Total** 12

**Culinary Arts - Pastry Chef Specialty (4CULA-PC)**

**Certificate of Technology**
## TECHNICAL PROGRAMS

### North Campus

The pastry chef program provides students an opportunity to specialize in baking and pastry. Courses in cake decorating, chocolates and confection sugars, and bakeshop production are just some of the exciting and challenging classes you will take on your road to becoming a pastry chef. As a pastry chef student, you will spend time learning from our award winning chef instructors as you learn and operate in our state of the art kitchen and bakery.

North Campus’ culinary arts program is ACF (American Culinary Federation) certified. The ACF is widely recognized as the most prestigious accreditation in the nation for a culinary education program. Upon graduation, students will be certified ACF Pastry Culinarians.

#### First Term

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#### Certificate of Technology Total

| **39** |

#### Capstone Experience: PSTR 2365

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<td><strong>14</strong></td>
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</table>

#### Culinary Arts - Pastry Chef Specialty (3CULA-PC)

<table>
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<tr>
<td><strong>14</strong></td>
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</tbody>
</table>

## Associate of Applied Science Degree

### North Campus

The purpose of the pastry chef program is to provide students with an opportunity to specialize their degree plan in baking and pastry. Program graduates will acquire relevant knowledge and skills that will prepare them to work in this exciting industry. Pastry chef students will learn cake decorating, chocolates and confection sugars, bakeshop production, plate presentation, fundamentals of baking, food and beverage cost control, nutritional components of food and desserts, and basic supervisory skills.

#### First Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
<th>Subtotal</th>
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<tbody>
<tr>
<td>CHEF 1205 Sanitation and Safety</td>
<td>2</td>
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<tr>
<td>RSTO 2301 Principles of Food and Beverage Controls</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>PSTR 1306 Cake Decorating I</td>
<td>3</td>
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<tr>
<td>PSTR 1301 Fundamentals of Baking</td>
<td>3</td>
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<td>PSTR 1342 Quantity Bakeshop Production</td>
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#### Second Term

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<tr>
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<tbody>
<tr>
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<td>PSTR 2307 Cake Decorating II</td>
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<td>RSTO 1313 Hospitality Supervision</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
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#### PostY1Summer

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<td>CHEF 1410 Garde Manger</td>
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#### Third Term

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<thead>
<tr>
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<tbody>
<tr>
<td>ENGL 1301 Composition I</td>
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<tr>
<td>SPCH 1321 Business and Professional Speech</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>MATH 1314 College Algebra or MATH 1333 Contemporary Mathematics for Technical Programs</td>
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<td>9</td>
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<td>*Humanities or Fine Arts</td>
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#### Fourth Term

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<thead>
<tr>
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<tbody>
<tr>
<td>*Social and Behavioral Sciences</td>
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<td>MRKG 1311 Principles of Marketing</td>
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</tr>
<tr>
<td>BCIS 1305 Business Computer Applications or ITSC 1309 Integrated Software Applications</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>ENGL 2311 Technical and Business Writing</td>
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</table>

#### Associate of Applied Science Degree Total

| **60** |

### Capstone Experience: PSTR 2365

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts and Social and Behavioral Sciences of the Transfer Core Curriculum.

## Restaurant Management (MCULA-RSTR)

### Marketable Skills Achievement Award

#### Central Campus

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
<th>Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEF 1205 Sanitation and Safety</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CHEF 1313 Food Service Operation/Systems</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>RSTO 1313 Hospitality Supervision</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>RSTO 1301 Beverage Management</td>
<td>3</td>
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<tr>
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## Restaurant Management (6CULA-RSTR)

### Occupational Certificate

#### Central Campus

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<th>Course</th>
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<tbody>
<tr>
<td>CHEF 1205 Sanitation and Safety</td>
<td>2</td>
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</tr>
<tr>
<td>IFWA 1318 Nutrition for the Food Service Professional</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>CHEF 1313 Food Service Operation/Systems</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>RSTO 1301 Beverage Management or HECO 1322 Nutrition and Diet Therapy</td>
<td>3</td>
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<tr>
<td>PHED Activity</td>
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<td>12</td>
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<tr>
<td><strong>Marketable Skills Achievement Award Total</strong></td>
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</tbody>
</table>
### Certificate of Technology

#### Central Campus

Certification from the American Culinary Federation is one of the most prestigious honors that a learning culinarian can obtain. Our programs offered on Central Campus, including Culinary Arts-Chef Training and Restaurant Management, are recognized as a few of the select programs in the Houston area that have obtained the accreditation. Our goal is to provide the highest level of instruction to give students knowledge, skills, and behaviors needed to transition into the next level of education or a beneficial career in the ever-growing hospitality industry. The accreditation received from the American Culinary Federation Educational Foundation allows us to adhere to the standards set forth by today’s leading chefs and restaurant operators, and also allows students who graduate to do so with the official title of Certified Culinarian.

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEF 1205 Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CHEF 1313 Food Service Operation/Systems</td>
<td>3</td>
</tr>
<tr>
<td>RSTO 1313 Hospitality Supervision</td>
<td>3</td>
</tr>
<tr>
<td>RSTO 1301 Beverage Management</td>
<td>3</td>
</tr>
<tr>
<td>IFWA 1318 Nutrition for the Food Service Professional or HECO 1322 Nutrition and Diet Therapy</td>
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<tr>
<td>PHED Activity</td>
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**Subtotal** 15

<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>RSTO 1325 Purchasing for Hospitality Operations</td>
<td>3</td>
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<tr>
<td>HAMG 1340 Hospitality Legal Issues</td>
<td>3</td>
</tr>
<tr>
<td>RSTO 2307 Catering</td>
<td>3</td>
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<tr>
<td>RSTO 2301 Principles of Food and Beverage Controls</td>
<td>3</td>
</tr>
<tr>
<td>RSTO 2365 Practicum (or Field Experience)-Restaurant, Culinary, and Catering Management/Manager</td>
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**Subtotal** 15

<table>
<thead>
<tr>
<th>Third Term</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>HAMG 1319 Computers in Hospitality</td>
<td>3</td>
</tr>
<tr>
<td>IFWA 1205 Food Service Equipment and Planning</td>
<td>2</td>
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<tr>
<td>RSTO 1304 Dining Room Service</td>
<td>3</td>
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<tr>
<td>ACCT 2301 Principles of Financial Accounting</td>
<td>3</td>
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<tr>
<td>RSTO 2405 Management of Food Production and Service</td>
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</table>

**Subtotal** 15

| Level 2 Certificate Total | 45 |

#### Capstone Experience: RSTO 2365

### Restaurant Management (4CULA-RSTR)

### Associate of Applied Science Degree

#### Central Campus

The restaurant management program provides training that will qualify graduates for supervisory positions in commercial food service. Courses are structured to cover the various operations of restaurants, hotel food service, cafeterias, coffee shops, catering and other areas of food service specialty.

Certification from the American Culinary Federation is one of the most prestigious honors that a learning culinarian can obtain. Our programs offered on Central Campus, including Culinary Arts-Chef Training and Restaurant Management, are recognized as a few of the select programs in the Houston area that have obtained the accreditation. Our goal is to provide the highest level of instruction to give students knowledge, skills, and behaviors needed to transition into the next level of education or a beneficial career in the ever-growing hospitality industry. The accreditation received from the American Culinary Federation Educational Foundation allows us to adhere to the standards set forth by today’s leading chefs and restaurant operators, and also allows students who graduate to do so with the official title of Certified Culinarian.

<table>
<thead>
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<th>First Term</th>
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<td>RSTO 1313 Hospitality Supervision</td>
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<tr>
<td>RSTO 1301 Beverage Management</td>
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<tr>
<td>HAMG 1319 Computers in Hospitality</td>
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**Subtotal** 15

<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSTO 1325 Purchasing for Hospitality Operations</td>
<td>3</td>
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<tr>
<td>HAMG 1340 Hospitality Legal Issues</td>
<td>3</td>
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<tr>
<td>RSTO 2307 Catering</td>
<td>3</td>
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<tr>
<td>RSTO 2301 Principles of Food and Beverage Controls</td>
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<tr>
<td>RSTO 2365 Practicum (or Field Experience)-Restaurant, Culinary, and Catering Management/Manager</td>
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**Subtotal** 15

<table>
<thead>
<tr>
<th>Third Term</th>
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<tbody>
<tr>
<td>HAMG 1319 Computers in Hospitality</td>
<td>3</td>
</tr>
<tr>
<td>IFWA 1205 Food Service Equipment and Planning</td>
<td>2</td>
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<tr>
<td>RSTO 1304 Dining Room Service</td>
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<tr>
<td>HECO 1322 Nutrition and Diet Therapy</td>
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**Subtotal** 15

| Level 2 Certificate Total | 45 |

#### Capstone Experience: RSTO 2365

### Restaurant Management (3CULA-RSTR)

### Associate of Applied Science Degree

#### Central Campus

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<tbody>
<tr>
<td>CHEF 1205 Sanitation and Safety</td>
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</tr>
<tr>
<td>CHEF 1313 Food Service Operation/Systems</td>
<td>3</td>
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<tr>
<td>RSTO 1313 Hospitality Supervision</td>
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<tr>
<td>RSTO 1301 Beverage Management</td>
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<td>IFWA 1318 Nutrition for the Food Service Professional or HECO 1322 Nutrition and Diet Therapy</td>
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**Subtotal** 15

**Second Term**

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<th>Course</th>
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<tbody>
<tr>
<td>RSTO 1325 Purchasing for Hospitality Operations</td>
<td>3</td>
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<tr>
<td>HAMG 1340 Hospitality Legal Issues</td>
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<td>RSTO 2307 Catering</td>
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<td>RSTO 2301 Principles of Food and Beverage Controls</td>
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**Subtotal** 15

**Third Term**

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<tr>
<td>HAMG 1319 Computers in Hospitality</td>
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<td>ACCT 2301 Principles of Financial Accounting</td>
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**Fourth Term**

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<th>Course</th>
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<tr>
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<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
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<tr>
<td>SPCH 1315 Public Speaking or</td>
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<tr>
<td>SPCH 1321 Business and Professional Speech</td>
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<tr>
<td><strong>Humansities of Fine Arts</strong></td>
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<td><strong>Social and Behavioral Sciences</strong></td>
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</tbody>
</table>

**Subtotal** 15

**Associate of Applied Science Degree Total** 60

**Capstone Experience:** RSTO 2405

Central Campus

The Dental Assisting Level 2 Certificate is a course of study designed to meet the needs of those students desiring to enter the dental assisting field. The dental assisting program is a science-oriented and skill development curriculum. The standards of the curriculum are mandated by the Commission on Dental Accreditation (ADA). The method of instructions includes lecture, laboratory, and clinical practice.

**First Term**

<table>
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<td>DNTA 1113 Emergency Management</td>
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<td>DNTA 1245 Preventive Dentistry</td>
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<td>DNTA 1305 Dental Radiology</td>
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<tr>
<td>DNTA 1301 Dental Materials</td>
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<td>DNTA 1311 Dental Science</td>
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<td>DNTA 1415 Chairside Assisting</td>
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**Subtotal** 16

**Second Term**

<table>
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<tr>
<td>DNTA 1251 Dental Office Management</td>
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<tr>
<td>DNTA 1341 Dental Laboratory Procedures</td>
<td>3</td>
</tr>
<tr>
<td>DNTA 1349 Dental Radiology in the Clinic</td>
<td>3</td>
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<tr>
<td>DNTA 1453 Dental Assisting Applications</td>
<td>4</td>
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<tr>
<td>DNTA 1347 Advanced Dental Science</td>
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<td>DNTA 1167 Practicum</td>
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**Subtotal** 16

**Third Term**

<table>
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<tbody>
<tr>
<td>DNTA 1102 Communication and Behavior in the Dental Office</td>
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<tr>
<td>DNTA 2130 Seminar for Dental Assistant</td>
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<tr>
<td>DNTA 2267 Practicum</td>
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<tr>
<td>DNTA 2252 Advanced Dental Radiology</td>
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<td>DNTA 2250 Advanced Dental Assisting applications</td>
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</table>

**Subtotal** 8

**Level 2 Certificate Total** 40

**Capstone Experience:** DNTA 2267

### Diesel Technology

#### Diesel Technology (4DEMR)

**Certificate of Technology**

**North Campus**

Diesel technology is a course of study designed to prepare the student for a career in the repair and maintenance of diesel engines, heavy truck transmissions, brakes and differentials.

A graduate of this two-year program is awarded the associate of applied science degree.

**First Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>DEMR 1306 Diesel Engine I</td>
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<td>DEMR 1410 Diesel Engine Testing and Repair I</td>
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<tr>
<td>DEMR 1405 Basic Electrical Systems</td>
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</tr>
<tr>
<td>DEMR 1423 Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair</td>
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**Subtotal** 15

**Second Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>DEMR 1251 Dental Office Management</td>
<td>2</td>
</tr>
<tr>
<td>DEMR 1341 Dental Laboratory Procedures</td>
<td>3</td>
</tr>
<tr>
<td>DEMR 1349 Dental Radiology in the Clinic</td>
<td>3</td>
</tr>
<tr>
<td>DEMR 1453 Dental Assisting Applications</td>
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<tr>
<td>DEMR 1347 Advanced Dental Science</td>
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<tr>
<td>DEMR 1167 Practicum</td>
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</table>

**Subtotal** 16
### DEMR 2412 Diesel Engine Testing and Repair II .......................... 4
### DEMR 1421 Power Train I ....................................................... 4
### DEMR 1317 Basic Brake Systems ........................................... 3
### DEMR 2432 Electronic Controls ............................................. 4
**Subtotal**  
15

### Third Term  
**Credit**
- DEMR 1301 Shop Safety and Procedures .......................... 3
- DEMR 1449 Diesel Engine II ................................................ 4
- DEMR 2334 Advanced Diesel Tune-up and  
  Troubleshooting .................................................. 3
- DEMR 2266 Field Experience-Diesel Engine Mechanic  
  and Repair or  
  *DEMR 1229 Preventive Maintenance .......................... 2
**Subtotal**  
12

**Certificate of Technology Total**  
42

**Capstone Experience:** DEMR 2266 or DEMR 2334  
*DEMR 1229 is offered as a substitute course for DEMR 2266 if jobs are not available.

### Diesel Technology (3DEMR)

#### Associate of Applied Science Degree

**North Campus**

**First Term**  
**Credit**
- DEMR 1306 Diesel Engine I ................................................ 3
- DEMR 1410 Diesel Engine Testing and Repair I .................. 4
- DEMR 1405 Basic Electrical Systems ................................. 4
- DEMR 1423 Heating, Ventilation, and Air  
  Conditioning (HVAC) Troubleshooting and Repair ........ 4
**Subtotal**  
15

**Second Term**  
**Credit**
- DEMR 2412 Diesel Engine Testing and Repair II .............. 4
- DEMR 1421 Power Train I .................................................. 4
- DEMR 1317 Basic Brake Systems ........................................ 3
- DEMR 2432 Electronic Controls ........................................ 4
**Subtotal**  
15

**Third Term**  
**Credit**
- DEMR 1301 Shop Safety and Procedures ....................... 3
- DEMR 1449 Diesel Engine II ............................................. 4

**Fourth Term**  
**Credit**
- MATH 1333 Contemporary Mathematics for Technical Programs  
  or MATH 1314 College Algebra or higher .................. 3
- ENGL 2311 Technical and Business Writing or  
  ENGL 1302 English Composition II .......................... 3
- *Social or Behavioral Sciences ................................. 3
- *Humanities or Fine Arts ........................................ 3
- SPCH 1321 Business and Professional Speech ............... 3
**Subtotal**  
15

**Associate of Applied Science Degree Total**  
60

**Capstone Experience:** DEMR 2266 or DEMR 2334  
*Courses which satisfy this requirement are listed in the Humanities and Fine Arts,  
and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

### Dietetics

#### Dietary Manager (MDIET)

**Marketable Skills Achievement Award**

**Central Campus**

**First Term**  
**Credit**
- DITA 1400 Dietary Manager I ........................................... 4
- FDNS 1168 Practicum(or Field Experience)-Dietetics/  
  Dietitian (RD) .................................................. 1
**Subtotal**  
5

**Second Term**  
**Credit**
- DITA 1401 Dietary Manager II ....................................... 4
- FDNS 1169 Practicum(or Field Experience)-  
  Dietetics/Dietitian (RD) ........................................ 1
**Subtotal**  
5

**Marketable Skills Achievement Award Total**  
10

**School Food Service Specialty (6DIET-SFSV)**
The electrical technology curriculum is designed to provide basic training for students to fill entry-level positions in the fields of construction, maintenance, design, marketing, residential, industrial, commercial, and other electrical-related industries. The program will also allow electrical workers to upgrade their skills as they gain on-the-job experience.

### Electrical Technology (6ELEC-TEC)

<table>
<thead>
<tr>
<th>Occupational Certificate</th>
<th>Central and North Campuses</th>
<th>First Term Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ELPT 1215 Electrical Calculations I ..................................................</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CETT 1302 Electricity Principles .......................................................</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ELPT 1325 National Electric Code I ....................................................</td>
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<tr>
<td></td>
<td></td>
<td>ELPT 1345 Commercial Wiring ..............................................................</td>
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<td></td>
<td></td>
<td>ELPT 1429 Residential Wiring .............................................................</td>
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<td></td>
<td>ELPT 1345 Commercial Wiring .............................................................</td>
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<tr>
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<td>Capstone Experience: ELPT 1345</td>
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### Electrical Technology (4ELEC-TEC)

<table>
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<tr>
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<td>ELPT 1215 Electrical Calculations I ..................................................</td>
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<td>ELPT 1325 National Electric Code I ....................................................</td>
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<td>ELPT 1429 Residential Wiring .............................................................</td>
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<td>Subtotal ........................................................</td>
</tr>
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</table>

### Electrical Technology (5ELEC-TEC)

<table>
<thead>
<tr>
<th>Level 2 Certificate</th>
<th>Central and North Campuses</th>
<th>First Term Credit</th>
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<tbody>
<tr>
<td></td>
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<td>ELPT 1215 Electrical Calculations I ..................................................</td>
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<td>ELPT 1429 Residential Wiring .............................................................</td>
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<td>Subtotal ........................................................</td>
</tr>
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</table>

### Electrical Technology (3ELEC-TEC)

<table>
<thead>
<tr>
<th>Certificate of Technology</th>
<th>Central Campus</th>
<th>First Term Credit</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>ELPT 1429 Residential Wiring .............................................................</td>
</tr>
<tr>
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<td>Subtotal ........................................................</td>
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### Automotive Technology (3AUTO-TEC)

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<th>First Term Credit</th>
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<tbody>
<tr>
<td></td>
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<td>CETT 1302 Electricity Principles .......................................................</td>
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<td>ELPT 1325 National Electric Code I ....................................................</td>
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<tr>
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<td></td>
<td>ELPT 1429 Residential Wiring .............................................................</td>
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<td>Subtotal ........................................................</td>
</tr>
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</table>

### Mechanical Technology (3MECH-TEC)

<table>
<thead>
<tr>
<th>Certificate of Technology</th>
<th>Central Campus</th>
<th>First Term Credit</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CETT 1302 Electricity Principles .......................................................</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ELPT 1325 National Electric Code I ....................................................</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ELPT 1429 Residential Wiring .............................................................</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtotal ........................................................</td>
</tr>
</tbody>
</table>
ELPT 2215 Electrical Calculations II ................................................. 2
ELPT 2305 Motors and Transformers ............................................. 3
ELPT 2337 Electrical Planning and Estimating ............................... 3
Subtotal 15

PostY1Summer Credit
ELPT 2325 National Electrical Code II ........................................ 3
Subtotal 3

Third Term Credit
ELPT 2343 Electrical Systems Design ........................................... 3
ELPT 2319 Programmable Logic Controllers I ................................. 3
ELPT 1357 Industrial Wiring ......................................................... 3
ELPT 2301 Journeyman Electrician Exam Review or ELPT 2364 Practicum (or Field Experience) - Electrical and Power Transmission Installation/Installer, General . 3
Subtotal 12

Level 2 Certificate Total 48

Capstone Experience: ELPT 2301 or ELPT 2364

Electrical Technology (3ELEC)

Associate of Applied Science Degree
Central and North Campuses

First Term Credit
ELPT 1215 Electrical Calculations I ................................................ 2
CETT 1302 Electricity Principles .................................................... 3
ELPT 1325 National Electric Code I .............................................. 3
ELPT 1429 Residential Wiring ....................................................... 4
ENGL 1301 Composition I .......................................................... 3
Subtotal 15

Second Term Credit
ELPT 1345 Commercial Wiring .................................................... 3
ELPT 1351 Electrical Machines ..................................................... 3
ELPT 1441 Motor Control ............................................................. 4
ELPT 2215 Electrical Calculations II ............................................. 2
MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra ............................................ 3
Subtotal 15

PostY1Summer Credit
ELPT 2325 National Electric Code II .............................................. 3
Subtotal 3

Third Term Credit
ELPT 2343 Electrical Systems Design ........................................... 3
ELPT 1357 Industrial Wiring ......................................................... 3
ELPT 2305 Motors and Transformers ........................................... 3
ELPT 2337 Electrical Planning and Estimating ................................. 3
*Social and Behavioral Sciences .................................................... 3
Subtotal 15

Fourth Term Credit
ELPT 2319 Programmable Logic Controllers I ................................. 3
ELPT 2301 Journeyman Electrician Exam Review or ELPT 2364 Practicum (or Field Experience) - Electrical and Power Transmission Installation/Installer, General . 3
Speech ....................................................................................... 3
Subtotal 15

*Humanities or Fine Arts .............................................................. 3
Subtotal 12

Associate of Applied Science Degree Total 60

Capstone Experience: ELPT 2301 or ELPT 2364

Electrical Technology (EELEC)

Enhanced Skills Certificate
Central and North Campuses

First Term Credit
ELPT 2449 Industrial Automation ................................................... 4
ELPT 1440 Mater Electrician Exam Review I ................................. 4
Enhanced Skills Certificate Total 8

Electrical Technology Communications and Alternative Energy (EELEC-CAE)

Enhanced Skills Certificate
Central and North Campuses

First Term Credit
EECT 1340 Telecommunications Transmission Media .................. 3
RBPT 2345 Onsite Power Generation and Renewable Energy . 3
Enhanced Skills Certificate Total 6

Electronics Technology

The applied computer electronics technology curriculum is designed to provide basic training for entry-level jobs in a variety of occupations in the field of electronics, telecommunications, automation, sensors, and computer engineering technology. A graduate of this program will have a good foundation in the principles of electronics with an emphasis on digital electronics and computers. The program provides training in advanced microprocessor applications and basic automation and robotics.

Graduates from this program should be capable of completing technical assignments in the fields of digital electronics, analog electronics, communications, and computer maintenance. The computer maintenance components of this program conform to the A+ and Net+ certification guidelines.

Electronics Technology (6ELCTRNS-Comm)

Occupational Certificate
Central Campus

The student in electronics communication technology builds an understanding of basic analog and digital communication circuits used in radio and telephone systems. The student will be able to apply techniques for installing and troubleshooting these systems to the fields associated with radio, telephone, data-relay, and other communications systems.
### Electronics Technology (4ELECTRON)

**Certificate of Technology**
- **Central Campus**
  The Certificate of Technology in Electronics Technology satisfies the basic technical requirements for a technician in support of electronics installation, fabrication, and troubleshooting associated with communications and embedded electronics applications. The student will design, build, and troubleshoot basic analog and digital circuits, as well as interface these circuits to systems using microprocessors and micro controllers.

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CETT 1303 DC Circuits</td>
<td>3</td>
</tr>
<tr>
<td>CETT 1305 AC Circuits</td>
<td>3</td>
</tr>
<tr>
<td>CETT 1325 Digital Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CETT 1349 Digital Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1325 Personal Computer Hardware</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Second Term**

| CETT 1329 Solid State Devices | 3 |
| CETT 1357 Linear Integrated Circuits | 3 |
| RBTC 1355 Sensors and Automation | 3 |
| ELMT 2337 Electronic Troubleshooting, Service, and Repair | 3 |
| **Math 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher** | 3 |
| **Subtotal**                  | **15** |

**Certificate of Technology Total**

| **30** |

**Capstone Experience: ELMT 2335, ELMT 2337 or EECT 2367**

### Electronics Technology (3ELECTRON)

**Associate of Applied Science Degree**
- **Central Campus**

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CETT 1303 DC Circuits</td>
<td>3</td>
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<td>CETT 1305 AC Circuits</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>15</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credit</th>
</tr>
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<tbody>
<tr>
<td>CETT 1329 Solid State Devices</td>
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<td>CETT 1357 Linear Integrated Circuits</td>
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<tr>
<td>RBTC 1355 Sensors and Automation</td>
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</tr>
<tr>
<td>ELMT 2337 Electronic Troubleshooting, Service, and Repair</td>
<td>3</td>
</tr>
<tr>
<td><strong>MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>15</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCEL 1305 Fuel Cell and Alternative/Renewable Energy</td>
<td>3</td>
</tr>
<tr>
<td>EECT 2339 Communications Circuits</td>
<td>3</td>
</tr>
<tr>
<td>ELMT 1305 Basic Fluid Power</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
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</tr>
<tr>
<td><strong>Approved Electives</strong></td>
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<tr>
<td>ELMT 2333</td>
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<tr>
<td>ELMT 2335</td>
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<tr>
<td>EECT 2367</td>
<td></td>
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<tr>
<td><strong>3</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Students planning to pursue a baccalaureate degree should enroll in MATH 1314.*
### Fourth Term  
**Credit**  
ELMT 2335 Certified Electronics Technician Training or  
EECT 2367 Practicum (or Field Experience)-Electrical,  
Electronic, and Communications Engineering Technology/  
Technician  
**Social and Behavioral Sciences**  
Speech  
**Approved Elective**  
**Approved Elective**  
**Subtotal**  
**Associate of Applied Science Degree Total**  
60

**Capstone Experience:** ELMT 2335, ELMT 2337 or EECT 2367

**Approved Electives**  
EECT 2367  ELMT 2333  ELMT 2335  ELMT 2341  
* Students planning to pursue a baccalaureate degree should enroll in MATH 1314.  
** Courses which satisfy this requirement are listed in the Humanities and Fine Arts,  
and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

### Emergency Medical Technology

A criminal background check and/or drug screening is required of all health science students attending clinical courses, or practicum; and may be required prior to admission to the program. The Emergency Medical Technology (EMT) curriculum includes a combination of class lectures, skills training and clinical training in hospital and ambulance settings. The EMT program at San Jacinto Community College District meets Texas Department of State Health Services (TDSHS) and the National Registry of EMT requirements for certification eligibility. Students registering for the emergency medical technology program must be potentially eligible to attempt TDSHS required National Registry of EMT certification examination upon successful completion of the program. Any applicant convicted of a felony and/or misdemeanor offense may or may not be eligible for clinical participation and/or state certification.

Central and North Campus programs are accredited by:  
Texas Department of State Health Services EMS and Trauma Systems  
1100 West 49th Street  
Austin, TX 78756-3199  
Office: (512) 458-7111  
and/or  
Committee on Accreditation of Allied Health Education Programs (CAAHEP), through the Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP)  
8301 Lakeview Parkway  
Suite 111-312  
Rowlett, Texas 75088  
Office: (214) 703-8445  
Fax: (214) 703-8992  

Students must meet all program requirements for eligibility to take the National Registry certification examination. A fee is charged by the TDSHS and the National Registry of EMT for certification and/or examinations. There may also be additional charges for field experiences.

### Program Enrollment

For information on course offerings and enrollment requirements, contact the Emergency Medical Technology program director on either the North or Central Campus.

### Emergency Medical Technology (5EMT)

**Level 2 Certificate**  
**Central and North Campuses**

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSP 1501 Emergency Medical Technician</td>
<td>5</td>
</tr>
<tr>
<td>EMSP 1160 Clinical-Emergency Medical Technician</td>
<td>1</td>
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<tr>
<td>BION 2301 Human Anatomy and Physiology I (Lec)</td>
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<tr>
<td>BION 2101 Human Anatomy and Physiology I (Lab)</td>
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**Subtotal**  
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<table>
<thead>
<tr>
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<th>Credit</th>
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<tbody>
<tr>
<td>BION 2302 Human Anatomy and Physiology II (Lec)</td>
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<tr>
<td>BION 2102 Human Anatomy and Physiology II (Lab)</td>
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<tr>
<td>EMSP 1338 Introduction to Advanced Practice</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 1355 Trauma Management</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 1356 Patient Assessment and Airway Management</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 1260 Clinical - Advanced Emergency Medical Technology</td>
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**Subtotal**  
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<th>Third Term</th>
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<tbody>
<tr>
<td>EMSP 2306 Emergency Pharmacology</td>
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<tr>
<td>EMSP 2444 Cardiology</td>
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</tr>
<tr>
<td>EMSP 2161 Clinical - EMT Paramedic I</td>
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**Subtotal**  
8

<table>
<thead>
<tr>
<th>Fourth Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>EMSP 2434 Medical Emergencies</td>
<td>4</td>
</tr>
<tr>
<td>EMSP 2330 Special Populations</td>
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</tbody>
</table>
EMSP 2162 Clinical - EMT Paramedic II ................................. 1
Subtotal                                            ...................... 8
PostY2Summer                                      Credit
EMSP 2243 Assessment Based Management .................. 2
EMSP 2168 Practicum/Field Experience - Paramedic .... 1
Subtotal                                            ...................... 3
Level 2 Certificate Total                         ...................... 44
Capstone Experience: Eligibility for National Registry of Emergency Medical Technicians (NREMT) Paramedic certification exam
Note: Students must pass each course listed in the degree or certificate for Emergency Medical Technology with a grade of C or higher to be eligible to receive a degree or certificate.

Emergency Medical Technology (3EMT)

Associate of Applied Science Degree
Central and North Campuses
First Term                                      Credit
EMSP 1501 Emergency Medical Technician .................. 5
EMSP 1160 Clinical - Emergency Medical Technician .... 1
ENGL 1301 Composition I ............................................ 3
MATH 1314 College Algebra or
MATH 1333 Contemporary Mathematics for Technical Programs ............................................ 3
Subtotal                                            ...................... 12
Second Term                                      Credit
BIOL 2301 Human Anatomy and Physiology I (Lec) and
BIOL 2101 Human Anatomy and Physiology I (Lab) ...... 4
EMSP 1338 Introduction to Advanced Practice .......... 3
EMSP 1355 Trauma Management ................................. 3
EMSP 1356 Patient Assessment and Airway Management ... 3
EMSP 1260 Clinical - Advanced Emergency Medical Technician ............................................ 2
Subtotal                                            ...................... 15
PostY1Summer                                      Credit
BIOL 2302 Human Anatomy and Physiology II (Lec) and
BIOL 2102 Human Anatomy and Physiology II (Lab) ...... 4
EMSP 2306 Emergency Pharmacology ......................... 3
EMSP 2444 Cardiology .................................................. 4
EMSP 2161 Clinical - EMT Paramedic I ....................... 1
Subtotal                                            ...................... 12
Third Term                                      Credit
EMSP 2434 Medical Emergencies ................................. 4
EMSP 2330 Special Populations ................................. 3
EMSP 2162 Clinical - EMT Paramedic II ..................... 1
ENGL 2311 Technical and Business Writing ................. 3
Subtotal                                            ...................... 11
Fourth Term                                      Credit
EMSP 2243 Assessment Based Management .................. 2
EMSP 2168 Practicum/Field Experience - Paramedic .... 1
PSYC 2301 General Psychology ................................. 3
EMSP 1191 Special Topics in Emergency Medical Technology/Technician ............................................ 1
Subtotal                                            ...................... 7

PostY2Summer                                      Credit
EMSP 2352 Emergency Medical Services Research .......... 3
Subtotal                                            ...................... 3
Associate of Applied Science Degree Total ............... 60
Capstone Experience: EMSP 2352
NOTE: Students must pass each course listed in the degree or certificate for Emergency Medical Technology with a grade of C or higher to be eligible to receive a degree or certificate.

Engineering Design Graphics

Engineering Design Graphics
Architectural/Civil/Structural Specialty
(4DFT-A)

Certificate of Technology
All Campuses
A Certificate of Technology focuses on 29 semester credit hours of technical course work. This is a fast-track award for those wishing to concentrate their studies in engineering design graphics and enter the job market as soon as possible. San Jacinto College offers three certificates of technology, including:
Architectural/Civil/Structural, Mechanical, and Petro-Industrial.

Pre-requisite                                      Credit
DFTG 1305 Technical Drafting ................................. 3
DFTG 1409 Basic Computer-Aided Drafting ................. 4
Subtotal                                            ...................... 7
First Term                                      Credit
ARCE 1421 Architectural Illustration or
ARCE 1452 Structural Drafting ................................. 4
DFTG 1417 Architectural Drafting-Residential .......... 4
DFTG 2421 Topographical Drafting ......................... 4
Subtotal                                            ...................... 12
Second Term                                      Credit
DFTG 2317 Descriptive Geometry ......................... 3
DFTG 2428 Architectural Drafting-Commercial or
DFTG 2431 Advanced Technologies in Architectural
Engineering Design Graphics
Architectural/Civil/Structural Specialty (5DFT-A)

Level 2 Certificate
All Campuses
San Jacinto College offers three Level 2 Certificates, including: Architectural/Civil/Structural, Mechanical, and Petro/Industrial. The Level 2 Certificate is comprised of 45 semester credit hours of Engineering Design Graphics (EDG) technical course work, 3 semester credit hours of mathematics and 3 semester credit hours of English. This is a fast-track award for those wishing to concentrate their studies in EDG and enter the job market as soon as possible.

First Term  Credit
DFTG 1305 Technical Drafting ............................................. 3
DFTG 1409 Basic Computer-Aided Drafting .......................... 4
ENGL 1301 Composition l .................................................. 3
MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher ................................................................. 3

Subtotal 13

Second Term  Credit
Engineering Design Graphics Elective ................................. 4
ARCE 1421 Architectural Illustration ................................... 4
ARCE 1452 Structural Drafting ........................................... 4

Subtotal 12

Third Term  Credit
DFTG 2428 Architectural Drafting - Commercial .................... 4

DFTG 1417 Architectural Drafting - Residential .................... 4
DFTG 2421 Topographical Drafting ...................................... 4

Subtotal 12

Fourth Term  Credit
DFTG 2317 Descriptive Geometry ...................................... 3
DFTG 2431 .... Advanced Technologies in Architectural Design and Drafting ................................................................. 4
Engineering Design Graphics Elective ................................. 4
+ DFTG 2386 Internship - Drafting and Design Technology/ Technician, General or DFTG 2338 Final Project - Advanced Drafting ........................................................................ 3

Subtotal 14

Level 2 Certificate Total  51

+ Capstone Experience: DFTG 2338 or DFTG 2386
+ The course selected to satisfy the Capstone Experience (DFTG 2338 or DFTG 2386) can only be taken during, or after, the term in which the last required and elective Engineering Design Graphics courses are completed.
Courses DO NOT have to be taken in this order, unless a course has a prerequisite. See catalog for descriptions.

For more detailed information on this program, contact the department chair or faculty.
Level 2 Certificates in multiple Engineering Design Graphics courses WILL NOT be awarded.

Engineering Design Graphics
Architectural/Civil/Structural Specialty (3DFT-A)

Associate of Applied Science Degree
All Campuses
Engineering Design Graphics (EDG) is a technical field where engineering data is communicated through drawings and three-dimensional models. Drafters provide support to designers, architects, and all types of engineers, preparing documentation and creating finished drawings for production in the engineering, construction or manufacturing industries. Drafters translate the ideas of engineers and architects from rough sketches, design layouts, specifications and calculations into working drawings, maps, plans, illustrations and 3D models which are used in producing marketable products. They prepare drawings and/or 3D models using Computer Aided Drafting, Design, and 3D modeling software in the fields of mechanical, petrochemical, architectural, civil, and structural. They make mathematical calculations related to the above fields using algebra, trigonometry, plane and solid geometry, applied mechanics and basic physics.

The EDG department provides several certificate levels and associate of applied science (A.A.S.) degree options. Working with local industry, courses have been clustered into specialty disciplines which provide concentration in specific areas of study, including: Architectural/Civil/Structural, Mechanical,
and Petro/Industrial.

First Term

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFTG 1305</td>
<td>Technical Drafting</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 1409</td>
<td>Basic Computer-Aided Drafting</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1333</td>
<td>Contemporary Mathematics for Technical Programs</td>
<td></td>
</tr>
<tr>
<td>or higher</td>
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<td>3</td>
</tr>
<tr>
<td>*Humanities or Fine Arts</td>
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</tbody>
</table>

Subtotal 16

Second Term

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>DFTG 2317</td>
<td>Descriptive Geometry</td>
<td>3</td>
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<tr>
<td>DFTG 2402</td>
<td>Machine Drafting</td>
<td>4</td>
</tr>
<tr>
<td>DFTG 2406</td>
<td>Machine Design</td>
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Subtotal 13

Third Term

<table>
<thead>
<tr>
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<tr>
<td>ARCE 1421</td>
<td>Architectural Illustration</td>
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<tr>
<td>ARCE 1452</td>
<td>Structural Drafting</td>
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<td>DFTG 2421</td>
<td>Topographical Drafting</td>
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Subtotal 16

Fourth Term

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<tbody>
<tr>
<td>DFTG 2428</td>
<td>Architectural Drafting-Commercial</td>
<td>4</td>
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<tr>
<td>DFTG 2431</td>
<td>Advanced Technologies in Architectural Design and Drafting</td>
<td>4</td>
</tr>
<tr>
<td>Engineering Design Graphics Elective</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>+ DFTG 2386 Internship - Drafting and Design Technology/ Technician, General or DFTG 2338 Final Project - Advanced Drafting</td>
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</tbody>
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Subtotal 15

Associate of Applied Science Degree Total 60

+ Capstone Experience: DFTG 2386 or DFTG 2338

Any DFTG course may be used as an EDG elective. Courses may only be applied ONCE toward an AAS or Level 2 Certificate.

Engineering Design Graphics Mechanical Specialty (4DFT-M)

Certificate of Technology

All Campuses

A Certificate of Technology focuses on 29 semester credit hours of technical course work. This is a fast-track award for those wishing to concentrate their studies in engineering design graphics and enter the job market as soon as possible. San Jacinto College offers three certificates of technology, including: Architectural/Civil/ Structural, Mechanical, and Petro-Industrial.

Pre-requisite

<table>
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<tr>
<th>Course Code</th>
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<td>DFTG 1305</td>
<td>Technical Drafting</td>
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<tr>
<td>DFTG 1409</td>
<td>Basic Computer-Aided Drafting</td>
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Subtotal 7

First Term

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<tr>
<td>DFTG 1445</td>
<td>Parametric Modeling and Design or DFTG 2458 Advanced Machine Design</td>
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<td>DFTG 2402</td>
<td>Machine Drafting</td>
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Subtotal 12

Second Term

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<td>DFTG 2317</td>
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</tr>
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<td>DFTG 2435</td>
<td>Advanced Technologies in Mechanical Design</td>
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Subtotal 17

Engineering Design Graphics Electives (Two Required):

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<td>DFTG 2402</td>
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<td>DFTG 2406</td>
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<tr>
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AAS Degrees in multiple Engineering Design Graphics Specialties WILL NOT be awarded.

* Courses which satisfy these requirements are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Associate of Arts Transfer Core Curriculum which is published in the San Jacinto Community College District Catalog.

Courses DO NOT have to be taken in this order, unless a course has a prerequisite. See course catalog for descriptions.

For more detailed information on this program, contact the department chair or faculty.

AAS Degrees in multiple Engineering Design Graphics Specialties WILL NOT be awarded.

+ The course selected to satisfy the Capstone Experience (DFTG 2386 or DFTG 2338) can only be taken during, or after the Term in which the last required and elective engineering design graphics courses are completed.

+ The course selected to satisfy the Capstone Experience (DFTG 2386 or DFTG 2338) can only be taken during, or after the Term in which the last required and elective engineering design graphics courses are completed.
Engineering Design Graphics Mechanical Specialty (5DFT-M)

Level 2 Certificate
All Campuses
San Jacinto College offers three Level 2 Certificates, including: Architectural/Civil/Structural, Mechanical, and Petro/Industrial. The Level 2 Certificate is comprised of 45 semester credit hours of Engineering Design Graphics (EDG) technical course work, 3 semester credit hours of mathematics and 3 semester credit hours of English. This is a fast-track award for those wishing to concentrate their studies in EDG and enter the job market as soon as possible.

First Term
DFTG 1305 Technical Drafting ................................................. 3
DFTG 1409 Basic Computer-Aided Drafting ............................. 4
ENGL 1301 Composition I ......................................................... 3
MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher .............................. 3
Subtotal ................................................................................. 13

Second Term
Engineering Design Graphics Elective ...................................... 4
DFTG 1445 Parametric Modeling and Design ............................. 4
DFTG 2402 Machine Drafting ...................................................... 4
Subtotal ............................................................................... 12

Third Term
DFTG 2458 Advanced Machine Design ..................................... 4

Fourth Term
DFTG 2406 Machine Design ....................................................... 4
DFTG 2440 Solid Modeling/Design ............................................ 4
Subtotal ............................................................................... 12

Fourth Term Credit
DFTG 2317 Descriptive Geometry ............................................. 3
DFTG 2435 Advanced Technologies in Mechanical Design and Drafting ......................................................... 4
Engineering Design Graphics Elective ........................................ 4
+ DFTG 2386 Internship - Drafting and Design Technology/ Technician, General or DFTG 2338 Final Project - Advanced Drafting ................................................................................. 3
Subtotal ................................................................................. 14

Level 2 Certificate Total 51
+ Capstone Experience: DFTG 2338 or DFTG 2386
+ The course selected to satisfy the Capstone Experience (DFTG 2338 or DFTG 2386) can only be taken during, or after, the Term in which the last required and elective Engineering Design Graphics courses are completed.
Courses DO NOT have to be taken in this order, unless a course has a prerequisite. See catalog for descriptions.
For more detailed information on this program, contact the department chair or faculty.
Level 2 Certificates in multiple Engineering Design Graphics Specialties WILL NOT be awarded.

Engineering Design Graphics Mechanical Specialty (3DFT-M)

Associate of Applied Science Degree
All Campuses
Engineering Design Graphics (EDG) is a technical field where engineering data is communicated through drawings and three-dimensional models. Drafters provide support to designers, architects, and all types of engineers, preparing documentation and creating finished drawings for production in the engineering, construction or manufacturing industries. Drafters translate the ideas of engineers and architects from rough sketches, design layouts, specifications and calculations into working drawings, maps, plans, illustrations and 3D models which are used in producing marketable products. They prepare drawings and/or 3D models using Computer Aided Drafting, Design, and 3D modeling software in the fields of mechanical, petrochemical, architectural, civil, and structural.

The EDG department provides several certificate levels and associate of applied science (A.A.S.) options. Working with local industry, courses have been clustered into specialty disciplines which provide concentration in specific areas of study, including: Architectural/Civil/Structural, Mechanical, and Petro/Industrial.

First Term
DFTG 1305 Technical Drafting ................................................. 3
DFTG 1409 Basic Computer-Aided Drafting ............................. 4

www.sanjac.edu
TECHNICAL PROGRAMS

ENGL 1301 Composition I ................................................................. 3
*Humanities or Fine Arts ................................................................. 3
MATH 1333 Contemporary Mathematics for
Technical Programs or MATH 1314 College Algebra
or higher ......................................................... ................................. 3

Subtotal 16

Second Term Credit
DFTG 2317 Descriptive Geometry ..................................................... 3
Engineering Design Graphics Elective ................................................. 4
*Social and Behavioral Sciences ......................................................... 3
ENGL 2311 Technical and Business Writing or
ENGL 1302 Composition II or
SPCH 1315 Public Speaking or
SPCH 1321 Business and Professional Speech ................................. 3

Subtotal 13

Third Term Credit
DFTG 2402 Machine Drafting ............................................................ 4
DFTG 1445 Parametric Modeling and Design ..................................... 4
DFTG 2406 Machine Design .............................................................. 4
DFTG 2440 Solid Modeling/Design .................................................... 4

Subtotal 16

Fourth Term Credit
DFTG 2435 Advanced Technologies in Mechanical Design
and Drafting ................................................................................. 4
DFTG 2458 Advanced Machine Design ............................................. 4
Engineering Design Graphics Elective ................................................. 4
+ DFTG 2386 Internship - Drafting and Design Technology/
Technician, General or DFTG 2338 Final Project -
Advanced Drafting ........................................................................... 3

Subtotal 15

Associate of Applied Science Degree Total 60

+ Capstone Experience: DFTG 2386 or DFTG 2338

+ The course selected to satisfy the Capstone Experience (DFTG 2386 or DFTG 2338) can only be taken during, or after, the term in which the last required and elective Engineering Design Graphics courses are completed.

* Courses which satisfy these requirements are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Associate of Arts Transfer Core Curriculum, which is published in the San Jacinto Community College District Catalog.

Courses DO NOT have to be taken in this order, unless a course has a prerequisite. See course catalog for descriptions.

For more detailed information on this program, contact the department chair or faculty.

AAS Degrees in multiple Engineering Design Graphics Specialties WILL NOT be awarded.

Any ARCE or DFTG course may be used as an EDG elective. Courses may only be applied ONCE toward as AAS or Level 2 Certificate.

Engineering Design Graphics Electives: (Two Required)

ARCE 1421 ARCE 1452 DFTG 1410
DFTG 1417 DFTG 2407 DFTG 2408
DFTG 2419 DFTG 2421 DFTG 2423
DFTG 2428 DFTG 2431 DFTG 2432
DFTG 2445 DFTG 2457

Engineering Design Graphics Petro/Industrial Specialty (4DFT-PI)

Certificate of Technology

All Campuses

A Certificate of Technology focuses on 29 semester credit hours of technical coursework. This is a fast-track award for those wishing to concentrate their studies in engineering design graphics and enter the job market as soon as possible. San Jacinto College offers three certificates of technology, including: Architectural/Civil/Structural, Mechanical, and Petro-Industrial.

Pre-requisite Credit
DFTG 1305 Technical Drafting ............................................................ 3
DFTG 1409 Basic Computer-Aided Drafting ...................................... 4

Subtotal 7

First Term Credit
DFTG 2423 Pipe Drafting ........................................................................................................ 4
DFTG 2457 Advanced Technologies in Pipe Design and...

Subtotal 12

Second Term Credit
DFTG 2317 Descriptive Geometry ..................................................... 3
DFTG 2457 Advanced Technologies in Pipe Design and
Drafting or DFTG 2445 Advanced Pipe Drafting .......... 4
+ DFTG 2386 Internship - Drafting Design Technology/
  Technician, General or DFTG 2338 Final Project -
  Advanced Drafting .......................................................... 3

Subtotal 10

Certificate of Technology Total 29

+ Capstone Experience: DFTG 2338 or DFTG 2386

+ The course selected to satisfy the Capstone Experience (DFTG 2338 or DFTG 2386) can only be taken during, or after, the Term in which the last required and elective engineering design graphics courses are completed.

Courses DO NOT have to be taken in this order, unless a course has a prerequisite. See catalog for descriptions.

Courses may only be applied ONCE toward a Certificate of Technology.

For more detailed information on this program, contact the department chair or faculty.

Certificates in multiple Engineering Design Graphics Specialties WILL NOT be awarded.

Engineering Design Graphics Petro/Industrial Specialty (5DFT-PI)

Level 2 Certificate
All Campuses
San Jacinto College offers three Level 2 Certificates, including: architectural/civil/structural, mechanical, and petro/industrial.

The Level 2 Certificate is comprised of 45 semester credit hours of Engineering Design Graphics (EDG) technical course work, 3 semester credit hours of mathematics and 3 semester credit hours of English. This is a fast-track award for those wishing to concentrate their studies and enter the job market as soon as possible.

First Term Credit
DFTG 1305 Technical Drafting ............................................. 3
DFTG 1409 Basic Computer-Aided Drafting ....................... 4
ENGL 1301 Composition I .................................................. 3
MATH 1333 Contemporary Mathematics for
  Technical Programs or MATH 1314 College Algebra
  or higher ........................................................................... 3

Subtotal 13

Second Term Credit
Engineering Design Graphics Elective ................................. 4
ARCE 1452 Structural Drafting ............................................. 4
DFTG 2423 Pipe Drafting .................................................... 4

Subtotal 12

Third Term Credit
DFTG 2407 Electrical Drafting ............................................. 4
DFTG 2408 Instrumentation Drafting .................................. 4
DFTG 2421 Topographical Drafting ..................................... 4

Subtotal 12

Fourth Term Credit
DFTG 2317 Advanced Drafting or
  Engineering Design Graphics Elective ......................... 3
DFTG 2445 Advanced Technologies in Pipe Design
  and Drafting ................................................................... 4
+ DFTG 2386 Internship - Drafting and Design Technology/
  Technician, General or DFTG 2338 Final Project -
  Advanced Drafting ........................................................... 3

Subtotal 14

Level 2 Certificate Total 51

+ Capstone Experience: DFTG 2338 or DFTG 2386

+ The course selected to satisfy the Capstone Experience (DFTG 2338 or DFTG 2386) can only be taken during, or after, the Term in which the last required and elective Engineering Design Graphics courses are completed.

Courses DO NOT have to be taken in this order, unless a course has a prerequisite. See catalog for descriptions.

For more detailed information on this program, contact the department chair or faculty.

Level 2 Certificates in multiple Engineering Design Graphics Specialties WILL NOT be awarded.

Any ARCE or DFTG course may be used as an EDG elective. Courses may only be applied ONCE toward an AAS or Level 2 Certificate.

Engineering Design Graphics electives: (Two Required)
ARCE 1421  DFTG 1410  DFTG 1417  DFTG 1445
DFTG 2402  DFTG 2406  DFTG 2419  DFTG 2428
DFTG 2431  DFTG 2432  DFTG 2435  DFTG 2440
DFTG 2458

Engineering Design Graphics Petro/Industrial Specialty (3DFT-PI)

Associate of Applied Science Degree
All Campuses
Engineering Design Graphics (EDG) is a technical field where engineering data is communicated through drawings and three-dimensional models. Drafters provide support to designers, architects, and all types of engineers, preparing documentation and creating finished drawings for production in the engineering, construction or manufacturing industries. Drafters translate the ideas of engineers and architects from rough sketches, design layouts, specifications and calculations into working drawings, maps, plans, illustrations and 3D models, which are used in producing marketable products. They prepare drawings and/or 3D models using Computer Aided Drafting, Design, and 3D modeling software in the fields of mechanical, petrochemical, architectural, civil, and structural.

The EDG department provides several certificate levels and associate of applied science (A.A.S.) degree options. Working with local industry, courses have been clustered into specialty disciplines which provide concentration in specific areas of study, including: Architectural/Civil/Structural, Mechanical, and Petro/Industrial.

First Term Credit
DFTG 1305 Technical Drafting ............................................. 3
DFTG 1409 Basic Computer-Aided Drafting ....................... 4
ENGL 1301 Composition I .................................................. 3
Environmental Health and Safety Technology

Environmental Health & Safety Technology (EHST) is a specialized branch of the health professions focusing on the environment of workers. Professionals in this field strive to find and eliminate conditions in the workplace that may result in occupational injury or disease. This is achieved through a process of anticipation, recognition, evaluation, and control of the various stresses that contribute to unsafe working environments.

The environmental health & safety technology program is multi-disciplinary in nature, providing students with relevant exposure to biological, chemical, physical, mathematical, and health sciences, as well as a thorough introduction to environmental health and safety concepts. Common occupational safety concerns deal with safety hazards involved with confined space entry, hazardous energy control, hazard communication, and compliance with safety standards, environmental protection, and other areas. Environmental health and safety personnel are expected to perform the following functions: identify and analyze accident and loss-producing conditions; develop accident prevention and loss control methods, procedures, and programs; communicate accidents and loss control data to individuals on a need-to-know basis; and measure and evaluate the effectiveness of accident and loss control systems.

The curriculum is modeled from guidelines of the American Board of Industrial Hygiene (ABIH) and the Board of Certified Safety Professionals (BCSP). The ABIH and BCSP began a jointly sponsored certification program through The Council on Certification of Health, Environmental, and Safety Technologist (CCHEST). CCHEST will administer the testing. Students who pass the certification examination, and pay the required fees, are authorized to use the title Environmental Health and Safety Technologist (OHST), and to use the initials OHST after their names. The students may complete curriculum at the upper-level universities leading toward Certified Safety Professional and/or Certified Industrial Hygienist.

Program Entry
EHST candidates (new or returning) must attend a mandatory EHST program orientation before being allowed to register for program related courses (does not apply to academic courses). Fall entry (August) orientations are held between April and May. Spring entry (January) orientations are held between November and December. No new students will be allowed to enter the EHST program during the Summer. Please contact the Public Safety and Security Department for upcoming orientation dates at 281.998.6150, ext. 3686.

Environmental Health and Safety Technology (5ENVR-HLTH)
Level 2 Certificate
Central Campus
First Term Credit
EPCT 1307 Introduction to Environmental Safety and Health ........................................ 3
OSHT 1309 Physical Hazards Control ................................................................. 3
EPCT 1301 Hazardous Wastes Operations and Emergency Response (HAZWOPER) Training & Related Topics ...... 3
OSHT 1307 Construction Site Safety and Health .............................................. 3
EPCT 1311 Introduction to Environmental Science .................................. 3
Subtotal .......................................................... 15
Second Term Credit
OSHT 1313 Accident Prevention, Inspection, and Investigation ................................. 3
OSHT 2309 Safety Program Management ..................................................... 3
OSHT 2320 Safety Training Presentation Techniques .................................... 3
OSHT 2401 OSHA Regulations - General Industry ........................................ 4
EPCT 1305 Environmental Regulations Overview .................................... 3
Major Elective ................................................................................. 3
Subtotal .......................................................... 19
Level 2 Certificate Total .......................................................... 34
Capstone Experience: OSHT 2309
Approved Electives
EMSP 1501* and EMSP 1160*
EPCT 1313 OSHT 1321 OSHT 2380
*Both courses are required if used to satisfy the elective requirement for Environmental Health and Safety Technology and must be taken concurrently.

Environmental Health and Safety Technology (3ENVR-HLTH)
Associate of Applied Science Degree
Central Campus
First Term Credit
EPCT 1307 Introduction to Environmental Safety and Health ........................................ 3
OSHT 1309 Physical Hazards Control ................................................................. 3
ENGL 1301 Composition I ........................................................................ 3
MATH 1314 College Algebra or Higher ......................................................... 3
CHEM 1311 General Chemistry I (Lec) and CHEM 1111 General Chemistry I (Lab) ........................................ 4
Subtotal .......................................................... 16
Second Term Credit
OSHT 1313 Accident Prevention, Inspection, and Investigation ................................. 3
OSHT 2320 Safety Training Presentation Techniques .................................... 3
Speech ............................................................................. 3
*CHEM 1312 General Chemistry II (Lec) and CHEM 1112 General Chemistry II (Lab) or BIOL 1305 Biology for Science Majors I (Lec) and BIOL 1106 Biology for Science Majors I (Lab) or BIOL 2301 Human Anatomy and Physiology I (Lec) and BIOL 2101 Human Anatomy and Physiology I (Lab) ...... 4
Subtotal .......................................................... 13
Third Term Credit
EPCT 1341 Principles Industrial Hygiene ......................................................... 3
OSHT 2305 Ergonomics and Human Factors in Safety ........................................ 3
OSHT 1307 Construction Site Safety and Health ........................................ 3
ENGL 2311 Technical and Business Writing ................................................. 3
**Humanities or Fine Arts ........................................................................ 3
Subtotal .......................................................... 15
Fourth Term Credit
EPCT 2333 Environmental Toxicology ............................................................ 3
OSHT 2401 OSHA Regulations-General Industry ........................................ 4
OSHT 2309 Safety Program Management ..................................................... 3
Approved Elective ................................................................................. 3
**Social and Behavioral Sciences .................................................................... 3
Subtotal .......................................................... 16
Associate of Applied Science Degree Total .......................................................... 60
Capstone Experience: OSHT 2309
*Students desiring to obtain a baccalaureate degree should take CHEM 1312/1112.
**Courses which satisfy this requirement are listed in the Humanities, Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.
Approved Electives
EMSP 1160* and EMSP 1501*
EPCT 1305 EPCT 1311 EPCT 1313 OSHT 2380

Eye Care Technology
Central Campus
A criminal background check and/or drug screening is required for all health science students attending clinical courses or practicum, and may be required prior to admission to the program.

Our eye care technology department consists of three levels of preparation. Students may obtain an Occupational Certificate, a Certificate of Technology, or their Associate of Applied Science. This program is designed to correlate classroom and laboratory experience with clinical experience in ophthalmic offices and clinics.

The eye care technology program is accredited by the Commission on Accreditation of Ophthalmic Medical Programs (CoA-OMP). Those graduates of the associate of applied science degree program are eligible to petition for examination through the Joint Commission on Allied Health Personnel in Ophthalmology at the certified ophthalmic technician level. Graduates of any of the three levels are eligible to petition for examination through the American Board of Opticianry for certification as an optician and/or the National Contact Lens Examiner.

The program requires formal entry into the program via departmental interview. Only those students who have been officially admitted to the College and have met all College admission criteria will be considered. The eye care technology department accepts new students each Fall term. Students who
miss the Fall entry may discuss Spring or Summer alternate entry options with the program director. The program offers both day and evening course as well as hybrid and online courses.

After acceptance into the program, the student must have a physical examination by a licensed professional and documentation of updated immunizations. A valid Healthcare Provider CPR card must be submitted as well.

Eye care technology student must earn a C or better in all eye care courses and maintain an overall cumulative GPA of at least 2.0 in order to remain in and/or graduate from the program. Any student earning a grade of D, W, or F in any eye care technology course must repeat the course and pass with a grade of C or higher. A second earned grade of less than C will result in the student being dismissed from the program. To re-enter into the program the student must submit a written petition to the eye care technology admission committee, and satisfy the re-admission criteria specified by the committee.

### Optician Preparatory (6EYE-PREP)

**Occupational Certificate**

**Central Campus**

**First Term**

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<tr>
<td>OPTS 1309 Ophthalmic Laboratory I</td>
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**Second Term**

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<td>OPTS 2431 Advanced Ophthalmic Dispensing</td>
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<tr>
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<tr>
<td><strong>Optician/Ophthalmic Dispensing Optician</strong></td>
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**PostY1Summer**

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<tr>
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<td><strong>Optician/Ophthalmic Dispensing Optician</strong></td>
<td>3</td>
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<td><strong>Subtotal</strong></td>
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**Occupational Certificate Total** 15

**Capstone Experience:** OPTS 1367

### Eye Care Technology (4EYE)

**Certificate of Technology**

**Central Campus**

**First Term**

<table>
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<tr>
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<tbody>
<tr>
<td>OPTS 1311 Visual System</td>
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<td>OPTS 2441 Ophthalmic Techniques</td>
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<td>HPRS 2200 Pharmacology for Health Professions</td>
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**Second Term**

<table>
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<tr>
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<td>OPTS 1315 Basic Contact Lenses</td>
<td>3</td>
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<tr>
<td>HPRS 1105 Essentials of Medical Law and Ethics for Health Professionals</td>
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<tr>
<td>OPTS 1266 Practicum (or Field Experience) - Optician/Ophthalmic Dispensing Optician</td>
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<tr>
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**PostY1Summer**

<table>
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<tbody>
<tr>
<td>OPTS 2350 Ophthalmic Surgical Techniques</td>
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<tr>
<td>OPTS 2445 Advanced Ophthalmic Techniques</td>
<td>4</td>
</tr>
<tr>
<td>OPTS 2266 Practicum (or Field Experience) - Optician/Ophthalmic Dispensing Optician</td>
<td>2</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>9</td>
</tr>
</tbody>
</table>

**Certificate of Technology Total** 29

**Capstone Experience:** OPTS 2266

### Associate of Applied Science Degree

**Central Campus**

**First Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>OPTS 1331 The Visual System</td>
<td>3</td>
</tr>
<tr>
<td>OPTS 2441 Ophthalmic Techniques</td>
<td>4</td>
</tr>
<tr>
<td>OPTS 1191 Special Topics In Opticianry/Dispensing Optician</td>
<td>1</td>
</tr>
<tr>
<td>HPRS 2200 Pharmacology for Health Professions</td>
<td>2</td>
</tr>
<tr>
<td>HPRS 1106 Essentials of Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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</tbody>
</table>

**Second Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>OPTS 1371 Anatomy and Physiology for Eye Care Technology</td>
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</tr>
<tr>
<td>OPTS 1401 Ophthalmic Dispensing</td>
<td>4</td>
</tr>
<tr>
<td>OPTS 1315 Basic Contact Lenses</td>
<td>3</td>
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<tr>
<td>OPTS 1266 Practicum (Field Experience) - Optician/Ophthalmic Dispensing/Optician</td>
<td>2</td>
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<tr>
<td>MATH 1314 Algebra or MATH 1333 Contemporary Mathematics for Technical Programs</td>
<td>3</td>
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<td><strong>Subtotal</strong></td>
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</table>

**PostY1Summer**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>HPRS 1105 Essentials of Medical Law and Ethics for Health Professionals</td>
<td>1</td>
</tr>
<tr>
<td>OPTS 2350 Ophthalmic Surgical Techniques</td>
<td>3</td>
</tr>
<tr>
<td>POFM 1327 Medical Insurance</td>
<td>3</td>
</tr>
<tr>
<td>OPTS 1166 Practicum (or Field Experience)</td>
<td>3</td>
</tr>
</tbody>
</table>
eligibility should be submitted to San Jacinto Community College in Austin, Texas, for guidance in petitioning the Commission for applicant should contact the Texas Commission on Fire Protection ineligible to participate in the certification examination. Such an inappropriate by the Texas Commission on Fire Protection may be course work. An applicant who has been convicted of a felony, potentially eligible to participate in certification examinations Students in the fire protection technology program must be certification opportunities as well as courses in general education. The fire protection technology department of San Jacinto Community College District offers three different educational programs for aspiring firefighters and current firefighters. For aspiring firefighters, the College offers the Firefighter Training Academy. The academy meets and exceeds all state requirements for paid/career firefighters. Students seeking an entry-level firefighter position should begin here. See below for further information regarding the Firefighter Training Academy.

For academy graduates and current firefighters, the College offers an Associate of Applied Science degree in firefighting. This program provides additional fire-related education and certification opportunities as well as courses in general education.

Students in the fire protection technology program must be potentially eligible to participate in certification examinations for firefighters upon successful completion of the prescribed course work. An applicant who has been convicted of a felony, implicated in substance abuse, or involved in activities considered inappropriate by the Texas Commission on Fire Protection may be ineligible to participate in the certification examination. Such an applicant should contact the Texas Commission on Fire Protection in Austin, Texas, for guidance in petitioning the Commission for a decision of eligibility. A copy of the Commission’s statement of eligibility should be submitted to San Jacinto Community College District’s Fire Protection Technology chief training officer.

Fire Protection Technology

The following courses meet and exceed the Texas Commission on Fire Protection’s curriculum requirements for Basic Fire Suppression Certification. Students who are not currently certified as an Emergency Medical Technician-Basic or higher will also need to complete the Emergency Medical Technician-Basic course. Please contact the fire protection program at 281-476-1834 for further information.

Firefighter Training Academy

Central Campus

The following courses meet and exceed the Texas Commission on Fire Protection’s curriculum requirements for Basic Fire Suppression Certification. Students who are not currently certified as an Emergency Medical Technician-Basic or higher will also need to complete the Emergency Medical Technician-Basic course. Please contact the fire protection program at 281-476-1834 for further information.

FIRS 1301–Firefighter Certification I ........................................... 3
FIRS 1407–Firefighter Certification II ........................................... 4
FIRS 1313–Firefighter Certification III .......................................... 3
FIRS 1319–Firefighter Certification IV ........................................... 3
FIRS 1323–Firefighter Certification V ........................................... 4
FIRS 1329–Firefighter Certification VI .......................................... 3
FIRS 1333–Firefighter Certification VII ......................................... 4
FIRS 1103 Firefighter Agility and Fitness Preparation ................. 1
FIRS 1103 Firefighter Agility and Fitness Preparation ................. 1

Firefighter Training Academy Total 24

Academy Information

New academy classes begin each Summer and Fall semester. Please contact the fire protection technology office for specific schedules and registration information. It is suggested that students contact the fire protection technology office a term in advance of anticipated enrollment, as classes fill quickly.

Firefighter Training Academy cadets must undergo a medical examination and physical performance test as defined in NFPA 1582, and submit approval documentation to the department’s chief training officer. Students not completing, or failing, the medical examination or the physical performance test are not eligible to continue in the academy and will be withdrawn. Students failing the medical examination or the physical performance test will be eligible for a 100 percent refund in accordance with the current refund policy if officially withdrawn in the registrar’s office on or before the 12th class day.

Firefighter Training Academy students must earn a grade of 70 or better on each of the academy exams in order to graduate from the academy. Failure to earn a grade of 70 or better on any exam in the academy will result in the student being administratively withdrawn from all Firefighter Training Academy courses. Please see course syllabus for details.

Each Firefighter Training Academy cadet must satisfactorily demonstrate each of the required performance skills in the curriculum manual of the Texas Fire Commission on Fire Protection in order to graduate from the Basic Fire Academy.

Student-initiated withdrawals from the required physical education courses, or instructor-initiated withdrawals due to excessive absences, shall result in administrative withdrawal from the Firefighter Training Academy.

In order to complete the Firefighter Training Academy, the student must earn a grade of C or above in each of the required physical education co-requisites. Failure to earn a grade of C or above in each of the required physical education co-requisites shall result in administrative withdrawal from the Firefighter Training Academy.

Administrative withdrawal from any San Jacinto Community
TECHNICAL PROGRAMS

College District course due to disciplinary action shall result in administrative withdrawal from the Firefighter Training Academy.

Certification Information
San Jacinto Community College District fire protection courses fulfill the educational requirements for numerous fire service certifications. Please contact the fire protection technology department on the Central Campus for specific information.

Firefighting (4FIREFTG)

Certificate of Technology
Central Campus
First Term  Credit
FIRS 1301 Firefighter Certification I ........................................... 3
FIRS 1407 Firefighter Certification II ........................................... 4
FIRS 1313 Firefighter Certification III ........................................... 3
FIRS 1323 Firefighter Certification V ........................................... 3
FIRS 1103 Firefighter Agility and Fitness Preparation ............. 1
Subtotal  14

Second Term  Credit
FIRS 1319 Firefighter Certification IV ........................................... 3
FIRS 1329 Firefighter Certification VI ........................................... 3
FIRS 1333 Firefighter Certification VII ........................................... 3
FIRS 1103 Firefighter Agility and Fitness Preparation ............. 1
Subtotal  14

Certificate of Technology Total  24

Capstone Experience: Eligible for the Texas Commission on Fire Protection - Basic Fire Suppression exam.

Firefighter - EMT (5FIRE-EMT)

Level 2 Certificate
Central Campus
First Term  Credit
FIRS 1301 Firefighter Certification I ........................................... 3
FIRS 1407 Firefighter Certification II ........................................... 4
FIRS 1313 Firefighter Certification III ........................................... 3
FIRS 1323 Firefighter Certification V ........................................... 3
FIRS 1103 Firefighter Agility and Fitness Preparation ............. 1
Subtotal  14

Second Term  Credit
EMSP 1501 Emergency Medical Technician .............................. 5
EMSP 1160 Clinical - Emergency Medical Technology/ Technician (EMT Paramedic) ............................................. 1
FIRS 1319 Firefighter Certification IV ........................................... 3
FIRS 1329 Firefighter Certification VI ........................................... 3
FIRS 1333 Firefighter Certification VII ........................................... 3
FIRS 1103 Firefighter Agility and Fitness Preparation ............. 1
Subtotal  16

Level 2 Certificate Total  30

Verification of workplace competencies: Eligible for Credential Exams - Texas Commission on Fire Protection Basic Fire Suppression

Firefighting (3FIRE-PROT)

Associate of Applied Science Degree
Central Campus
Persons who are currently certified by the Texas Commission on Fire Protection may enter the program with special permission from the department chair. Under this provision, Firefighter–Basic Certification is accepted in lieu of completion of the following Fire Protection courses:

First Term  Credit
FIRS 1301 Firefighter Certification I ........................................... 3
FIRS 1407 Firefighter Certification II ........................................... 4
FIRS 1313 Firefighter Certification III ........................................... 3
FIRS 1323 Firefighter Certification V ........................................... 3
FIRS 1103 Firefighter Agility and Fitness Preparation ............. 1
Subtotal  14

Second Term  Credit
FIRS 1319 Firefighter Certification IV ........................................... 3
FIRS 1329 Firefighter Certification VI ........................................... 3
FIRS 1333 Firefighter Certification VII ........................................... 3
FIRS 1103 Firefighter Agility and Fitness Preparation ............. 1
Subtotal  14

Third Term  Credit
ENGL 1301 Composition I ..................................................... 3
MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra ............................................. 3
*Humanities or Fine Arts ......................................................... 3
FIRT 1327 Building Construction for the Fire Service ............. 3
Approved Elective ................................................................. 3
Subtotal  15

Fourth Term  Credit
ENGL 2311 Technical and Business Writing ........................... 3
Speech .................................................................................... 3
FIRT 2305 Fire Instructor I ..................................................... 3
Approved Elective ................................................................. 3
Approved Elective ................................................................. 3
Subtotal  15

Associate of Applied Science Degree Total  60

Verification of workplace competencies: Eligible for Credential Exams - Texas Commission on Fire Protection Basic Fire Suppression

*Courses that satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Services sections of the Transfer Core Curriculum.

Approved Electives
FIRT 1303  FIRT 1315  FIRT 1319  FIRT 1329
FIRT 1407  FIRT 1423  FIRT 1433

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**Enhanced Skills Certificate**

**Central Campus**
The Enhanced Skills Certificate is designed for students who have completed the Firefighting Associate of Applied Science Degree.

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRT 2356 Fire Officer III</td>
<td>3</td>
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<tr>
<td>FIRT 2359 Fire Instructor III</td>
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<tr>
<td>Second Term</td>
<td>Credit</td>
</tr>
<tr>
<td>FIRT 2357 Fire Officer IV</td>
<td>3</td>
</tr>
<tr>
<td>FIRT 2112 Hazardous Materials Commander</td>
<td>1</td>
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<td><strong>Subtotal</strong></td>
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</table>

**Enhanced Skills Certificate Total** 10

**Health Information Management**

**Medical Billing and Coding (4HITT-MDBC)**

<table>
<thead>
<tr>
<th>Certificate of Technology</th>
<th>North Campus</th>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>HITT 1305 Medical Terminology I</td>
<td>3</td>
<td></td>
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<tr>
<td>ITSC 1309 Integrated Software Applications I</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPR 2301 Pathophysiology</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HITT 1374 Anatomy and Physiology</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HITT 1301 Health Data Content and Structure</td>
<td>3</td>
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<td><strong>Subtotal</strong></td>
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<td></td>
</tr>
<tr>
<td>Second Term</td>
<td>Credit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HITT 1341 Coding and Classification Systems</td>
<td>3</td>
<td></td>
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<tr>
<td>HITT 1311 Health Information Systems</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HITT 2346 Advanced Medical Coding</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>HITT 1353 Legal and Ethical Aspects of Health Information</td>
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<td><strong>Subtotal</strong></td>
<td>12</td>
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<tr>
<td>Third Term</td>
<td>Credit</td>
<td></td>
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<tr>
<td>HITT 1377 Clinical-Billing and Coding</td>
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<td><strong>Subtotal</strong></td>
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</table>

**Certificate of Technology Total** 30

**External Learning Experience: HITT 1377**

Note: Students must pass each HITT and HPRS course listed in health information management associate of applied science (A.A.S.) degrees, and certificate plans with a grade of C to be eligible to receive either the degree or any of the certificates.

**Medical Coding (5HITT-MDC)**

<table>
<thead>
<tr>
<th>Level 2 Certificate</th>
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<td>Credit</td>
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<tr>
<td>HITT 1305 Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>HITT 1301 Health Data Content and Structure</td>
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<tr>
<td>ITSC 1309 Integrated Software Applications I</td>
<td>3</td>
</tr>
<tr>
<td>HITT 1374 Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>HPR 2301 Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>HITT 1341 Coding and Classification Systems</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
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<tr>
<td>Second Term</td>
<td>Credit</td>
</tr>
<tr>
<td>HITT 1345 Health Care Delivery Systems</td>
<td>3</td>
</tr>
<tr>
<td>HITT 2335 Coding and Reimbursement Methodology</td>
<td>3</td>
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<tr>
<td>HITT 1353 Legal and Ethical Aspects of Health Information</td>
<td>3</td>
</tr>
<tr>
<td>HITT 2346 Advanced Medical Coding</td>
<td>3</td>
</tr>
<tr>
<td>HITT 1311 Health Information Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>15</td>
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<tr>
<td>Third Term</td>
<td>Credit</td>
</tr>
<tr>
<td>HITT 2245 Coding Certification Exam Review</td>
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<tr>
<td>HITT 1360 Clinical - Health Information/Medical Records Technology/Technician</td>
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**Level 2 Certificate Total** 38

**External Work Experience: HITT 1360**

Note: Students must pass each HITT and HPRS course listed in health information management associate of applied science (A.A.S.) degrees, and certificate plans with a grade of C to be eligible to receive either the degree or any of the certificates.

**Health Information Management (3HITT-INF)**

**Associate of Applied Science Degree**

**North Campus**
The Associate of Applied Science degree in Health Information Management is designed to train health information management personnel to perform a variety of technical functions including organizing, analyzing, coding, and technically evaluating health information. Health information technicians work to ensure that complete and accurate records are kept for each patient in a health care facility.

The Associate of Applied Science (AAS) degree in Health Information Management Program of San Jacinto College is fully accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

Upon graduation, students are eligible to apply to take the national examination to become a Registered Health Information Technician (RHIT) through the American Health Information Management Association (AHIMA.org).

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>HITT 1305 Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
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<tr>
<td>HITT 1301 Health Data Content and Structure</td>
<td>3</td>
</tr>
<tr>
<td>HPR 2301 Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1309 Integrated Software Applications I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>15</td>
</tr>
<tr>
<td>Second Term</td>
<td>Credit</td>
</tr>
<tr>
<td>HITT 1345 Health Care Delivery Systems</td>
<td>3</td>
</tr>
</tbody>
</table>
Cancer Data Management Specialty (3HITT-CAN)

Associate of Applied Science Degree
North Campus

First Term
- HITT 1301 Health Data Content and Structure ............................................ 3
- ITSC 1309 Integrated Software Applications I ............................................. 3
- HITT 1305 Medical Terminology I .............................................................. 3
- ENGL 1301 Composition I ............................................................................. 3
- Speech ......................................................................................................... 3

Subtotal ........................................................................................................ 15

Second Term
- HITT 1341 Coding and Classification Systems .......................................... 3
- HPRS 2301 Pathophysiology ...................................................................... 3
- HITT 1345 Health Care Delivery Systems .................................................. 3
- HITT 1374 Anatomy and Physiology ......................................................... 3

Subtotal ........................................................................................................ 12

PostY1Summer ............................................................................................. 3

HITT 1353 Legal and Ethical Aspects of Health Information .......................... 3

Subtotal ........................................................................................................ 3

Third Term
- HITT 1311 Health Information Systems .................................................... 3
- HITT 1307 Cancer Data Management I .................................................... 3
- PSYC 2301 General Psychology .................................................................. 3
- BIOL 1308 Biology for Non-Science Majors (Lec) ..................................... 4
- BIOL 1108 Biology for Non-Science Majors (Lab) ..................................... 4

Subtotal ........................................................................................................ 13

Fourth Term
- HITT 1361 Clinical - Cancer Data Management ....................................... 3
- HITT 2343 Quality Assessment and Performance Improvement .............. 3
- HITT 2307 Cancer Data Management II ................................................. 3
- HITT 2339 Health Information Organization and Supervision ................ 3
- HITT 2370 Cancer Data Management III .............................................. 3
- Humanities or Fine Arts ............................................................................. 3

Subtotal ........................................................................................................ 18

Associate of Applied Science Degree Total ................................................ 61

External Learning Experience: HITT 1361 Certification Exam: CTR National Certification Exam

Note: This is a new exit point recommended by advisory committee to address the CTR National Certification.

Note: Students must pass each HITT and HPRS course listed in the health information management A.A.S. degrees, and certificate plans with a grade of C to be eligible to receive either the degree or any of the certificates.

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts sections of the Transfer Core Curriculum in the Educational Programs section of the Catalog.

**Students must be Texas Success Initiative (TSI) complete in order to graduate: Math level 9.

Cancer Data Management (AHITT-CAN)

Advanced Technical Certificate
North Campus

Program Description:
This advanced technical certificate is designed to teach all aspects of the cancer registry, including survey processes, data collection/retrieval-abstracting, coding, staging and reporting; and how the cancer registry is a vital part of the health care delivery system.

Prerequisites:
To be eligible to complete this Advanced Technical Certificate, the student must have at least a minimum of an associate degree and a medical science basic science or Biology/Introduction to Medicine course.

Cancer Data Management Accreditation:
The Associate of Applied Science in Cancer Data Management and the Advanced Certificate of Technology are fully accredited by the National Cancer Registrars Association (NCRA).

Upon completion of this program, the student is eligible to apply to take the national certification examination for Certified Tumor Registrar (CTR) from the National Cancer Registrars Association.
Health Science

Associate of Applied Science Degree
All Campuses
The Associate of Applied Science (A.A.S) in Health Science is a career path for persons who have completed the following certificate programs: medical assisting, pharmacy technician, or vocational nursing. The 60 semester credit hour degrees for these programs are designed for health science professionals to meet education goals, to transfer into four-year university health care administration or health care service programs, and to attain possible promotion from entry-level to more advanced level office positions.

Health Science Vocational Nursing Pathway (3HSC-LVN)

Associate of Applied Science Degree

First Term
VNSG 1116 Nutrition or
HECO 1322 Principles of Nutrition .................................................. 1
VNSG 1322 Anatomy and Physiology for Allied Health or
BIOL 2301 Human Anatomy and Physiology I (Lec) and
BIOL 2101 Human Anatomy and Physiology I (Lab) and
BIOL 2302 Human Anatomy and Physiology II (Lec) and
BIOL 2102 Human Anatomy and Physiology II (Lab) ...... 3
VNSG 1327 Essentials of Medication Administration .................. 3
VNSG 1423 Basic Nursing Skills ......................................................... 4
VNSG 2431 Advanced Nursing Skills ................................................ 4
VNSG 1260 Clinical I ....................................................................... 2
Subtotal ......................................................................................... 17

Second Term
VNSG 1429 Medical-Surgical Nursing I ........................................... 4
VNSG 1331 Pharmacology ............................................................... 3
VNSG 1261 Clinical II ..................................................................... 2
VNSG 1301 Mental Health and Mental Illness ............................... 3
VNSG 1205 NCLEXPN Review ......................................................... 2
VNSG 1226 Gerontology ................................................................ 2
VNSG 1162 Clinical III .................................................................... 1
Subtotal ......................................................................................... 17

Total Health Science Courses: 126 Credit Hours

Academic Requirements

First Term
VNSG 1362 Clinical III .................................................................... 3
VNSG 1226 Gerontology ................................................................ 2
VNSG 1205 NCLEXPN Review ......................................................... 2
VNSG 2160 Clinical IV ..................................................................... 1
VNSG 2161 Clinical V ..................................................................... 1
VNSG 1119 Leadership and Professional Development ............. 1
Subtotal ......................................................................................... 11

Fourth Term
MATH 1314 Algebra or higher .......................................................... 3
PSYC 2301 General Psychology ....................................................... 3
ENGL 1301 Composition I ............................................................... 3
Humanities or Fine Arts .................................................................. 3
SPCH 1311 Introduction to Speech or
SPCH 1315 Public Speaking or
SPCH 1318 Interpersonal Communications or
SPCH 1321 Business and Professional Speech ......................... 3
Subtotal ......................................................................................... 15

Total Academic Course Hours: 75 Credit Hours

To be eligible for this degree, the student must have completed the vocational nursing certificate program. Courses which satisfy the Humanities or Fine Arts requirement are listed in this section of the Transfer Core Curriculum, which is published in the San Jacinto Community College Catalog.

Health Science Medical Assisting Pathway (3HSC-MDAST)

Associate of Applied Science Degree
All Campuses
Pre-requisite
HPRS 1201 Introduction to Health Professions ................................. 2
HPRS 1304 Basic Health Profession Skills ................................... 3
Subtotal ......................................................................................... 5

First Term
HPRS 1304 Basic Health Profession Skills ................................... 3
MDCA 1309 Anatomy and Physiology for Medical Assistants 3
MDCA 1321 Administrative Procedures ........................................ 3
MDCA 1343 Medical Insurance ..................................................... 3
Subtotal ......................................................................................... 15

Second Term
MDCA 1205 Medical Law and Ethics ............................................. 2
BUSI 1304 Business Report Writing and Correspondence .......... 3
MDCA 1348 Pharmacology and Administration of Medications .......................................................... 3
MDCA 1310 Medical Assistant Interpersonal and Communication Skills .......................................................... 3
MDCA 1417 Procedures in a Clinical Setting ............................... 4
Subtotal ......................................................................................... 15

Total Medical Assisting Pathway Courses: 93 Credit Hours

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### TECHNICAL PROGRAMS

#### Third Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1314 College Algebra or higher</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2301 General Psychology</td>
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<tr>
<td>ENGL 1301 Composition I</td>
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</tr>
<tr>
<td>Humanities or Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1311 Introduction to Speech or</td>
<td></td>
</tr>
<tr>
<td>SPCH 1315 Public Speaking or</td>
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<tr>
<td>SPCH 1318 Interpersonal Communications or</td>
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<tr>
<td>SPCH 1321 Business and Professional Speech</td>
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<tr>
<td>BCIS 1305 Business Computer Applications</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
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</tbody>
</table>

#### Associate of Applied Science Degree Total 60

To be eligible for this degree, the student must have completed the Medical Assisting certificate program. Courses which satisfy the Humanities or Fine Arts requirement are listed in this section of the Transfer Core Curriculum, which is published in the San Jacinto Community College Catalog.

### Health Science Pharmacy Technician Pathway (3HSC-PHAR)

#### All Campuses

#### First Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
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<tbody>
<tr>
<td>HPRS 1206 Essential Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>PHRA 1301 Introduction to Pharmacy</td>
<td>3</td>
</tr>
<tr>
<td>PHRA 1305 Drug Classification</td>
<td>3</td>
</tr>
<tr>
<td>PHRA 1309 Pharmaceutical Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>PHRA 1313 Community Pharmacy Practice I</td>
<td>3</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</table>

#### Second Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PHRA 1441 Pharmacy Drug Therapy and Treatment</td>
<td>4</td>
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<tr>
<td>PHRA 1347 Pharmaceutical Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>PHRA 1345 Compounding Sterile Preparations</td>
<td>3</td>
</tr>
<tr>
<td>and Aseptic Technique</td>
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</tr>
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<td>PHRA 1349 Institutional Pharmacy Practice</td>
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#### Third Term

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<thead>
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<tbody>
<tr>
<td>PHRA 1243 Pharmacy Technician Certification Review</td>
<td>2</td>
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<tr>
<td>PHRA 1360 Clinical: Community Pharmacy</td>
<td>3</td>
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<td>PHRA 2360 Clinical: Institutional Pharmacy</td>
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#### Fourth Term

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<thead>
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<tr>
<td>MATH 1314 College Algebra or higher</td>
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<tr>
<td>PSYC 2301 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>Humanities or Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1311 Introduction to Speech or</td>
<td></td>
</tr>
<tr>
<td>SPCH 1315 Public Speaking or</td>
<td></td>
</tr>
<tr>
<td>SPCH 1318 Interpersonal Communications or</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1321 Business and Professional Speech</td>
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<tr>
<td><strong>Subtotal</strong></td>
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#### Fifth Term

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<td>ENGL 1302 Composition II</td>
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<tr>
<td>BIOL 1306 Biology for Science Majors I (Lec)</td>
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</tr>
<tr>
<td>BIOL 1106 Biology for Science Majors I (Lab)</td>
<td>3</td>
</tr>
<tr>
<td>BCIS 1305 Business Computer Applications</td>
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<td><strong>Subtotal</strong></td>
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</tbody>
</table>

#### Associate of Applied Science Degree Total 60

To be eligible for this degree, the student must have completed the Pharmacy Technician certificate program. Courses which satisfy the Humanities or Fine Arts requirement are listed in this section of the Transfer Core Curriculum, which is published in the San Jacinto Community College Catalog.

### Instrumentation Technology

Instrumentation technology training at San Jacinto College falls into three categories: instrumentation installation, general instrument maintenance, and control systems technology.

Instrumentation technology is arguably the most technologically challenging field in industry today. Highly-trained instrument technicians are responsible for installing, calibrating, and troubleshooting individual process instruments, as well as complete control systems. They are expected to understand the workings of a process, as well as the complexity of the control system.

Computer control in the processing industry provides a platform for more sophisticated control strategies, and requires connecting intelligent devices together through various networking systems and protocols.

Key facilities of the instrumentation technology program at San Jacinto College are a fully equipped pneumatic control lab and an analog electronic lab control. We also have a 10-station SLC 5/03 Programmable Logic Controller (PLC) lab and a 10-station Emerson Process Management DeltaV Distributed Control System (DCS) lab with 10 fully-operational flowing process instrumented stations. In addition, we have access to a full-sized functioning distillation (ethylene glycol and water separation) unit to explore maintenance issues and control strategies.

Our primary focus is in providing the local processing industry with good, trainable entry-level technicians. However, our students will have the latitude of working in other related areas such as oil exploration and production, and municipal water treatment facilities for cross-country pipeline companies, and electrical power plants, and in manufacturer field technician positions.
### Instrumentation Analyzer (MINST)

** Marketable Skills Achievement Award**

**Central Campus**

**First Term**  
- SCIT 1414 Applied General Chemistry I  
- INTC 1375 Sample Systems  
- INTC 1348 Analytical Instrumentation  

Subtotal 4

**Second Term**  
- INTC 2388 Internship-Instrumentation Technology/Technician  
- or CPMT 1349 Computer Networking Technology or CTEC 1401 Applied Petrochemical Technology or PHYS 1401 College Physics I  
- EPCT 1349 Environmental Regulations Interpretation and Applications  
- INTC 2345 Advanced Analyzers  
- INTC 2374 Physical Properties Analyzers  

Subtotal 12

**Occupational Certificate Total**  

### Instrumentation Analytical (6INST-ANLY)

**Occupational Certificate**

**Central Campus**

**First Term**  
- SCIT 1414 Applied General Chemistry I  
- INTC 1375 Sample Systems  
- INTC 1348 Analytical Instrumentation  

Subtotal 10

**Second Term**  
- INTC 2388 Internship-Instrumentation Technology/Technician or CPMT 1349 Computer Networking Technology or CTEC 1401 Applied Petrochemical Technology or PHYS 1401 College Physics I  
- EPCT 1349 Environmental Regulations Interpretation and Applications  
- INTC 2345 Advanced Analyzers  
- INTC 2374 Physical Properties Analyzers  

Subtotal 12

**Occupational Certificate Total**  

### Instrumentation Technology (5INST)

**Central Campus**

**First Term**  
- INCR 1302 Physics of Instrumentation  
- CETT 1302 Electricity Principles  
- ENER 1330 Basic Mechanical Skills for Energy  
- ENER 1240 Employee Success in Energy Industry  
- Speech  

Subtotal 14

**Second Term**  
- INTC 2310 Principles of Industrial Measurements II  
- OSHT 1320 Energy Industrial Safety  
- TECM 1301 *Industrial Mathematics  
- **Humanities or Fine Arts**  

Subtotal 15

**PostY1Summer**  
- INTC 1355 Unit Operations  

Subtotal 3

**Third Term**  
- EFWR 1302 Introduction to Technical Writing  
- INTC 2330 Instrumentation Systems Troubleshooting  
- INTC 2339 Instrument and Control Review or INTC 2388 Internship-Instrumentation Technology/Technician  
- INTC 2336 Distributed Control and Programmable Logic  

Subtotal 3

**Level 2 Certificate Total**  

44

**Capstone Experience:** INTC 2339 or INTC 2388

**Verification of workplace competencies.**

* Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.

### Instrumentation Technology (3INST)

**Central Campus**

**First Term**  
- INCR 1302 Physics of Instrumentation  
- CETT 1302 Electricity Principles  
- ENER 1330 Basic Mechanical Skills for Energy  
- ENER 1240 Employee Success in Energy Industry  
- Speech  

Subtotal 14

**Second Term**  
- INTC 2312 Analog Controls I  
- INTC 2310 Principles of Industrial Measurements II  
- TECM 1301 *Industrial Mathematics  
- **Humanities or Fine Arts**  

Subtotal 15

**PostY1Summer**  
- INTC 1355 Unit Operations  

Subtotal 3

**Third Term**  
- INTC 2330 Instrumentation Systems Troubleshooting  
- INTC 2339 Instrument and Control Review or INTC 2388 Internship-Instrumentation Technology/Technician  
- INTC 2336 Distributed Control and Programmable Logic  

Subtotal 3

**Fourth Term**  
- INTC 2339 Instrument and Control Review or INTC 2388 Internship-Instrumentation Technology/Technician  
- CHEM 1305 Introductory Chemistry I (Lec) and CHEM 1105 Introductory Chemistry I (Lab)  

Subtotal 4

**Associate of Applied Science Degree**

**Central Campus**

**First Term**  
- INCR 1302 Physics of Instrumentation  
- CETT 1302 Electricity Principles  
- ENER 1330 Basic Mechanical Skills for Energy  
- ENER 1240 Employee Success in Energy Industry  
- Speech  

Subtotal 14

**Second Term**  
- INTC 2312 Analog Controls I  
- INTC 2310 Principles of Industrial Measurements II  
- TECM 1301 *Industrial Mathematics  
- **Humanities or Fine Arts**  

Subtotal 15

**PostY1Summer**  
- INTC 1355 Unit Operations  

Subtotal 3

**Third Term**  
- INTC 2330 Instrumentation Systems Troubleshooting  
- INTC 2339 Instrument and Control Review or INTC 2388 Internship-Instrumentation Technology/Technician  
- INTC 2336 Distributed Control and Programmable Logic  

Subtotal 3

**Fourth Term**  
- INTC 2339 Instrument and Control Review or INTC 2388 Internship-Instrumentation Technology/Technician  
- CHEM 1305 Introductory Chemistry I (Lec) and CHEM 1105 Introductory Chemistry I (Lab)  

Subtotal 4

**Level 2 Certificate Total**  

44

**Capstone Experience:** INTC 2339 or INTC 2388

**Verification of workplace competencies.**

* Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.

### Instrumentation Technology (3INST)

**Central Campus**

**First Term**  
- INCR 1302 Physics of Instrumentation  
- CETT 1302 Electricity Principles  
- ENER 1330 Basic Mechanical Skills for Energy  
- ENER 1240 Employee Success in Energy Industry  
- Speech  

Subtotal 14

**Second Term**  
- INTC 2312 Analog Controls I  
- INTC 2310 Principles of Industrial Measurements II  
- TECM 1301 *Industrial Mathematics  
- **Humanities or Fine Arts**  

Subtotal 15

**PostY1Summer**  
- INTC 1355 Unit Operations  

Subtotal 3

**Third Term**  
- INTC 2330 Instrumentation Systems Troubleshooting  
- INTC 2339 Instrument and Control Review or INTC 2388 Internship-Instrumentation Technology/Technician  
- INTC 2336 Distributed Control and Programmable Logic  

Subtotal 3

**Fourth Term**  
- INTC 2339 Instrument and Control Review or INTC 2388 Internship-Instrumentation Technology/Technician  
- CHEM 1305 Introductory Chemistry I (Lec) and CHEM 1105 Introductory Chemistry I (Lab)  

Subtotal 4

**Level 2 Certificate Total**  

44

**Capstone Experience:** INTC 2339 or INTC 2388

**Verification of workplace competencies.**

* Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.
### TECHNICAL PROGRAMS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>13</strong></td>
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</tbody>
</table>

**Associate of Applied Science Degree Total** 60

**Capstone Experience:** INTC 2388 or INTC 2339; Verification of workplace competencies

* Students desiring to obtain a baccalaureate degree should take Math 1314 College Algebra.

** Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

### Instrumentation Technology (EINST)

**Enhanced Skills Certificate**

**Central Campus**
The enhanced skills certificate in instrumentation technology is designed for students who have completed the Instrumentation Technology Associate of Applied Science degree.

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTC 1341 Principles of Automatic Control</td>
<td>3</td>
</tr>
<tr>
<td>INTC 2359 Distributed Control Systems</td>
<td>3</td>
</tr>
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</table>

**Enhanced Skills Certificate Total** 6

### Interior Design

**Interior Design (MINTD)**

**Marketable Skills Achievement Award**

**Central Campus**
The Interior Decorator Marketable Skills Achievement Award is an entry level certificate for those students seeking a minimum amount of education in the field of Interior Design/Decoration.

The 3 classes required for this certificate expose the student to the Elements and Principles of Interior Design, the History of Interior Design from Ancient Egypt through the Renaissance, and the fundamentals of textile production and their applications as they apply to Interior Design.

This certificate would allow the recipient the opportunity to work as a design assistant or to obtain employment in a fabric showroom.

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDS 1311 Fundamental of Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1451 History of Interiors I</td>
<td>4</td>
</tr>
<tr>
<td>INDS 2407 Textiles for Interior Design</td>
<td>4</td>
</tr>
</tbody>
</table>

** Marketable Skills Achievement Award Total** 11

**Capstone Experience:** INDS 2407

### Interior Decorator II (6INT-DDII)

**Occupational Certificate**

**Central Campus**

This certificate coupled with the INTERIOR DECORATOR MARKETABLE SKILLS ACHIEVEMENT AWARD (MINTD) is designed for the para-professional that seeks interior design education to enhance their skills in interior design related occupations such as real estate staging, project management, building and contracting, and other interior design related professions.

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDS 1449 Fundamentals of Space Planning</td>
<td>4</td>
</tr>
<tr>
<td>INDS 1452 History of Interiors II</td>
<td>4</td>
</tr>
<tr>
<td>INDS 2321 Presentation Drawing</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 1409 Basic Computer-Aided Drafting</td>
<td>4</td>
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**Subtotal** 15

<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ARTS 1301 Art Appreciation</td>
<td>3</td>
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</table>

**Subtotal** 3

**Occupational Certificate** 18

**Capstone:** INDS 2321

### Interior Design (5INTD-DSGN)

**Pre-Professional Level 2 Certificate**

**Central Campus**

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDS 1311 Fundamental of Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>INDS 1451 History of Interiors I</td>
<td>4</td>
</tr>
<tr>
<td>INDS 2407 Textiles for Interior Design</td>
<td>4</td>
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**Subtotal** 11

<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>INDS 1449 Fundamentals of Space Planning</td>
<td>4</td>
</tr>
<tr>
<td>INDS 1452 History of Interiors II</td>
<td>4</td>
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<tr>
<td>INDS 2321 Presentation Drawing</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 1409 Basic Computer-Aided Drafting</td>
<td>4</td>
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</tbody>
</table>

**Subtotal** 15
## Interior Design (3INT-DSGN)

### Associate of Applied Science Degree

**Central Campus**

This program is designed to develop the ability to identify, research, and creatively solve problems relative to interior spaces, including programming, design analysis, and space planning. The students will work with commercial and residential spaces, prepare presentations, and learn business procedures used by interior designers.

The course work for the Associates of Applied Science degree is offered over a 5 semester period, which includes one summer Term Credit. The curriculum provides a balance of technical, creative, and business training necessary for a career in interior design. Upon completion of the Associates of Applied Science degree the student may continue their education by seeking the 12 credit hour Enhanced Skills Certificate.

Note: Students who begin their interior design education after Sept 2006 will not be allowed by the Texas Board of Architectural Examiners (TBAE) to register with the State of Texas to become a Registered Interior Designer unless they graduate from a 4 year program that is approved by the Council for Interior Design Accreditation (CIDA). Please keep in mind that registration in the state of Texas is completely voluntary and that you can practice interior design without being registered with TBAE. However, a student graduating from a 2 year institution can apply for certification by NCIDQ (National Council for Interior Design Qualifications) to be NCIDQ certified with a two year degree and 5280 hours of qualified interior design coursework. Please see NCIDQ’s website for details [www.ncidq.org](http://www.ncidq.org).

### First Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>INDS 1311 Fundamental of Interior Design</td>
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<tr>
<td>INDS 1451 History of Interiors I</td>
<td>4</td>
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### Second Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>INDS 1449 Fundamentals of Space Planning</td>
<td>4</td>
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### Third Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>INDS 1345 Commercial Design I</td>
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<td>INDS 1415 Materials, Methods &amp; Estimating</td>
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<tr>
<td>INDS 2313 Residential Design I</td>
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### Fourth Term

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<tr>
<td>INDS 2325 Professional Practices for Interior Designers</td>
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<tr>
<td>INDS 2335 Residential Design II</td>
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</tr>
<tr>
<td>INDS 2386 Internship - Interior Design</td>
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</table>

**Level 2 Certificate Total** 45

**Capstone: INDS 2313**

### Interior Design (EINT-DSGN)

### Enhanced Skills Certificate

**Central Campus**

The Interior Design A.A.S. degree and the following courses are required for the Interior Design Enhanced Skills Certificate. This certificate is a post-professional certificate that allows the student to broaden their knowledge base by studying the fundamentals of lighting, interior design related computer programs, and portfolio development.

### First Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>INDS 2387 Internship - Interior Design</td>
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<tr>
<td>INDS 2405 Interior Design Graphics</td>
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### Second Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>INDS 2315 Lighting for Interior Designer</td>
<td>3</td>
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<tr>
<td>INDS 2237 Portfolio Presentation</td>
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</tbody>
</table>

**Enhanced Skills Certificate Total** 12

**Capstone Experience: INDS 2405**

### International Business, Logistics, and Maritime

The international business, logistics, and maritime program is designed to prepare students for careers in international trade and maritime shipping administration. Graduates will work within all modes of transportation and intermodal carriage, and be overall
subject matter experts in export and import management, maritime business, shipping agency and international contracts, terminal transloading, oil and gas/offshore supply chain operations, customs regulations, purchasing and sourcing of materials, international marketing and cross-cultural management, tug/barge and ship management, port operations, and implementation of asset tracking and reporting technology.

Most industries use logistics and supply chain management skills in organization operations and strategic planning. Students who successfully complete the international business program can move into hospital and health care operations, wholesale and retail management, cruise and passenger shipping, warehousing and distribution, parts and equipment logistics, and military logistics and supply chain.

International Business and Logistics

(MINTL-LOG)

 Marketable Skills Achievement Award
North Campus
First Term Credit
IBUS 1300 Global Logistics Management ........................................... 3
IBUS 1305 Introduction to International Business and Trade 3
IBUS 1354 International Marketing Management .......................... 3
LMGT 1321 Introduction to Materials Handling ............................. 3
Subtotal 12

 Marketable Skills Achievement Award Total 12

International Business and Logistics
(6INTL-LOG)

Occupational Certificate
North Campus
First Term Credit
IBUS 1300 Global Logistics Management ........................................... 3
IBUS 1305 Introduction to International Business and Trade 3
IBUS 1354 International Marketing Management .......................... 3
LMGT 1321 Introduction to Materials Handling ............................. 3
IBUS 2345 Import Customs Regulations ......................................... 3
Subtotal 15

Second Term Credit
IBUS 2366 Practicum (or Field Experience) - International Business/Trade/Commerce ........................................... 3
Subtotal 12

PostY1Summer Credit
IBUS 2367 Practicum (or Field Experience) - International Business/Trade/Commerce ........................................... 3
Subtotal 3

Certificate of Technology Total 30

External Learning Experience: IBUS 2367

International Business and Logistics
(3INTL-LOG)

Associate of Applied Science Degree
North Campus
First Term Credit
IBUS 1300 Global Logistics Management ........................................... 3
IBUS 1305 Introduction to International Business and Trade 3
IBUS 1354 International Marketing Management .......................... 3
LMGT 1321 Introduction to Materials Handling ............................. 3
IBUS 2345 Import Customs Regulations ......................................... 3
Subtotal 15

Second Term Credit
IBUS 1301 Principles of Exports ......................................................... 3
IBUS 1302 Principles of Imports ......................................................... 3
IBUS 1341 Global Supply Chain Management .......................... 3
IBUS 2366 Field Experience - International Business/Trade/Commerce ........................................... 3
Subtotal 12

PostY1Summer Credit
IBUS 2367 Practicum (or Field Experience) - International Business/Trade/Commerce ........................................... 3
Subtotal 3

Third Term Credit
*MATH 1314 College Algebra or
MATH 1333 Mathematics for Technical Programs ................. 3
**Economics or Psychology or Sociology ........................................... 3
BCIS 1305 Business Computer Applications ............................... 3
ENGL 1301 Composition I ................................................................. 3
GEOG 1303 World Regional Geography ........................................ 3
Subtotal 15

Fourth Term Credit
ACNT 1303 Introduction to Accounting I or
ACCT 2301 Principles of Financial Accounting ........................................... 3
ENGL 1302 Composition II or
ENGL 2311 Technical and Business Writing .................................... 3
SPCH 1321 Business and Professional Speech ........................................... 3
**Humanities or Fine Arts ................................................................. 3
HRPO 1311 Human Relations .......................................................... 3
## Subtotal
15

## Associate of Applied Science Degree Total
60

**External Work Experience: IBUS 2367**

*Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.

**Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the transfer Core Curriculum.

### Maritime and Logistics Specialty (6INTL-MAR)

#### Occupational Certificate

<table>
<thead>
<tr>
<th>North Campus</th>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MART 1371 Introduction to Ships and Shipping</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IBUS 1301 Principles of Exports</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IBUS 1302 Principles of Imports</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IBUS 1354 International Marketing Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>LMGT 1345 Economics of Transportation and Distribution</td>
<td>3</td>
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</tbody>
</table>

**Subtotal** 15

**Occupational Certificate Total** 15

**Capstone Experience: LMGT 1345**

### Maritime and Logistics Specialty (4INTL-MAR)

#### Certificate of Technology

<table>
<thead>
<tr>
<th>North Campus</th>
<th>First Term</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>MART 1371 Introduction to Ships and Shipping</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IBUS 1301 Principles of Exports</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IBUS 1302 Principles of Imports</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IBUS 1354 International Marketing Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>LMGT 1345 Economics of Transportation and Distribution</td>
<td>3</td>
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</tr>
</tbody>
</table>

**Subtotal** 15

#### Second Term | Credit |
| IBUS 1300 Global Logistics Management | 3 |
| IBUS 1341 Global Supply Chain Management | 3 |
| LMGT 1325 Warehouse and Distribution Center Management | 3 |
| LMGT 1321 Introduction to Materials Handling | 3 |

**Subtotal** 12

**PostY1Summer | Credit |
| IBUS 2345 Import Customs Regulations | 3 |
| IBUS 2367 Practicum (or Field Experience) - International Business/Trade/Commerce | 3 |

**Subtotal** 6

#### Third Term | Credit |
| *MATH 1314 College Algebra or MATH 1333 Contemporary Mathematics for Technical Programs | 3 |
| **Economics or Psychology or Sociology | 3 |
| BCIS 1305 Business Computer Applications or ITSC 1309 Integrated Software Applications I | 3 |
| ENGL 1301 Composition I | 3 |
| GEOG 1303 World Regional Geography | 3 |

**Subtotal** 15

#### Fourth Term | Credit |
| ACNT 1303 Introduction to Accounting I or ACCT 2301 Principles of Financial Accounting | 3 |

### External Field Experience: IBUS 2367

#### International Business Maritime and Logistics Specialty (3INTL-MAR)

<table>
<thead>
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<th>North Campus</th>
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<th>Credit</th>
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<tbody>
<tr>
<td>MART 1371 Introduction to Ships and Shipping</td>
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<tr>
<td>IBUS 1301 Principles of Exports</td>
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</tr>
<tr>
<td>IBUS 1302 Principles of Imports</td>
<td>3</td>
<td></td>
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<tr>
<td>IBUS 1354 International Marketing Management</td>
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<tr>
<td>LMGT 1345 Economics of Transportation and Distribution</td>
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<td></td>
</tr>
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</table>

**Subtotal** 15

#### Second Term | Credit |
| IBUS 1300 Global Logistics Management | 3 |
| IBUS 1341 Global Supply Chain Management | 3 |
| LMGT 1325 Warehouse and Distribution Center Management | 3 |
| LMGT 1321 Introduction to Materials Handling | 3 |

**Subtotal** 12

**PostY1Summer | Credit |
| IBUS 2345 Import Customs Regulations | 3 |
| IBUS 2367 Practicum (or Field Experience) - International Business/Trade/Commerce | 3 |

**Subtotal** 6

#### Third Term | Credit |
| *MATH 1314 College Algebra or MATH 1333 Contemporary Mathematics for Technical Programs | 3 |
| **Economics or Psychology or Sociology | 3 |
| BCIS 1305 Business Computer Applications or ITSC 1309 Integrated Software Applications I | 3 |
| ENGL 1301 Composition I | 3 |
| GEOG 1303 World Regional Geography | 3 |

**Subtotal** 15

#### Fourth Term | Credit |
| ACNT 1303 Introduction to Accounting I or ACCT 2301 Principles of Financial Accounting | 3 |
You successfully complete a national exam for licensure in the state of Texas. The national exam is administered by DADS on behalf of the National Association of Boards of Examiners for Long-Term Care Administration (NAB). Questions regarding licensure and state exam requirements should be directed to the Texas Department of Aging and Disability Services (DADS) at 512-438-3011 or www.dads.state.tx.us.

The LTCA Advanced Technical Certificate program is open to anyone who already holds a minimum of a bachelor’s degree conferred by an accredited educational institution. The degree should be in business, business management, healthcare administration, nursing, or some other closely related discipline.

**First Term**
- LTCA 2314 Long Term Care Law .................................................. 3
- LTCA 2315 Financial Management of Long Term Care Facilities .................................................. 3
- LTCA 2488 Internship - Hospital and Health Care Facilities Adm./Mgmt. .................................................. 4

**Second Term**
- LTCA 1312 Resident Care in Long Term Care Facility .......... 3
- LTCA 1313 Organization and Management of Long Term Care Facilities .................................................. 3
- LTCA 2489 Internship - Hospital and Health Care Facilities Adm./Mgmt. .................................................. 4

**Third Term**
- LTCA 2310 Environment of Long Term Care Facility .......... 3
- LTCA 2388 Internship - Hospital and Health Care Facilities Adm./Mgmt. .................................................. 3

**Legal Assistant**
See Paralegal

**Long Term Care Administration**

**Long Term Care Administration (ALTRM-CARE)**

**Advanced Technical Certificate**

**Central Campus**
Long term care of the elderly, physically ill, and mentally ill is a rapidly growing field with increasing demand for licensed administrators. As the U.S. population ages, the need for quality long term care increases and employment opportunities are expected to grow at a faster rate than many other areas of business management. Nursing home administrators are responsible for the daily operations of nursing homes that comply with federal, state, and local governmental agency requirements. They are responsible for patient admissions, facility operations, personnel management, accounting, budget planning, insurance regulations, and more.

The Advanced Technical Certificate in the Long Term Care Administration (LTCA) program offered by San Jacinto College Central Campus will assist you to develop the leadership and critical thinking skills needed to succeed in this unique business environment, while also focusing on the practical aspects of long term care. As healthcare continues to follow a more businesslike approach, business degrees have become a professional necessity.

The LTCA program is designed to equip students for successful careers as the administrators of Long Term Care in Texas. The state licensing exam is offered through the Texas Department of Aging and Disability Services (DADS). The requirements to take the state exam include successful completion of 15 credit hours of course work as well as completing a 1,000 hour administrator-in-training (AIT) internship with a DADS-approved Preceptor in a licensed nursing home with a minimum of 60 beds. The LTCA program includes the required coursework and internship hours to apply to take the licensing exam required by the State of Texas.

In addition to the state licensing exam, Texas also requires that you successfully complete a national exam for licensure in the state of Texas. The national exam is administered by DADS on behalf of the National Association of Boards of Examiners for Long-Term Care Administration (NAB). Questions regarding licensure and state exam requirements should be directed to the Texas Department of Aging and Disability Services (DADS) at 512-438-3011 or www.dads.state.tx.us.
### Social and Behavioral Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>NAUT 1372 Seamanship I</td>
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<tr>
<td>IBUS 1300 Global Logistics Management</td>
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#### Second Term

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<tr>
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<tbody>
<tr>
<td>NAUT 1273 Engineering Familiarization</td>
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<tr>
<td>BCIS 1305 Applications Integrated Software or ITSC 1309 Integrated Software Applications I</td>
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#### Third Term

<table>
<thead>
<tr>
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<tr>
<td>NAUT 1374 Basic Safety and Survival</td>
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#### Fourth Term

<table>
<thead>
<tr>
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<tr>
<td>NAUT 1276 Seamanship II</td>
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<tr>
<td>NAUT 1272 Marine Cargo Operations I</td>
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#### Occupational Certificate Total

| **20** |

#### Capstone Experience: NAUT 1276

### Maritime Transportation (3MARITIME)

#### Associate of Applied Science Degree

##### Central Campus

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<tbody>
<tr>
<td>NAUT 1372 Seamanship I</td>
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<tr>
<td>NAUT 1374 Basic Safety and Survival</td>
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</tr>
<tr>
<td>NAUT 1471 Introduction to Ships and Shipping</td>
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<tr>
<td>PHED 1142 Fitness Swimming or PHED 1105 Beginning and Intermediate Swimming</td>
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<tr>
<td>ENGL 1301 Composition I</td>
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<tr>
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<td>NAUT 1274 Marine Cargo Operations II</td>
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<td>NAUT 1273 Engineering Familiarization</td>
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<td>NAUT 1276 Seamanship II</td>
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<tr>
<td>Math 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or MATH 1324 Finite Mathematics</td>
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<td>NAUT 2364 Practicum</td>
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#### Third Term

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<tbody>
<tr>
<td>NAUT 1171 Medical Care Provider</td>
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<tr>
<td>NAUT 2471 Terrestrial and Coastal Navigation</td>
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<td>NAUT 1174 Maritime Regulation and Management</td>
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<td>NAUT 2274 Basic Stability and Ship Construction</td>
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<td>BCIS 1305 Business Computer Applications or ITSC 1309 Integrated Software Applications I</td>
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<td>*Humanities or Fine Arts</td>
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#### Fourth Term

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<th>Course</th>
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<tr>
<td>NAUT 2472 Integrated Operations</td>
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<tr>
<td>NAUT 2171 Upgrade to Apprentice Mate</td>
<td>1</td>
</tr>
<tr>
<td>NAUT 2278 Bridge Resource Management</td>
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</tr>
<tr>
<td>NAUT 2272 Radar Observer Unlimited</td>
<td>2</td>
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<tr>
<td>*Social and Behavioral Sciences</td>
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<td><strong>Subtotal</strong></td>
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</table>

### Associate of Applied Science Degree Total

| **60** |

#### Capstone Experience: NAUT 2365

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

### Massage Therapy

#### Massage Therapy (6MASG-THPY)

##### Occupational Certificate

#### Central Campus

The Massage Therapy Occupational Certificate is a course of study designed to meet the needs of those students desiring to enter the massage therapy profession. Our program prepares students with the technical knowledge, lab skills, and hands-on-training to successfully complete national licensing exams and gain licensure for the State of Texas as a Licensed Massage Therapist. Full-time students can earn the Occupational Certificate in two semesters. All key aspects of the massage therapy profession are addressed. Applicants must agree to be screened for criminal history as required by the Texas Department of State Health Services.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>MSSG 1105 Hydrotherapy</td>
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<tr>
<td>MSSG 1109 Health and Hygiene</td>
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<tr>
<td>MSSG 1411 Massage Therapy Fundamentals I</td>
<td>4</td>
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<tr>
<td>MSSG 1413 Anatomy and Physiology for Massage</td>
<td>4</td>
</tr>
<tr>
<td>BMGT 1341 Business Ethics</td>
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#### Second Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>MSSG 2311 Massage Therapy Fundamentals II</td>
<td>3</td>
</tr>
<tr>
<td>MSSG 2314 Pathology for Massage</td>
<td>3</td>
</tr>
<tr>
<td>MSSG 2313 Kinesiology for Massage</td>
<td>3</td>
</tr>
<tr>
<td>MSSG 2186 Internship-Massage Therapy/Therapeutic Massage</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</table>

#### Occupational Certificate Total

| **23** |

### Medical Assisting

The medical assisting program is designed to train medical assistant personnel to perform both administrative and clinical duties and
to report directly to an office manager, physician, or other health practitioner. Administrative duties may include answering telephones, greeting patients, updating and filing patient medical records, filling out insurance forms, scheduling appointments, handling billing, and bookkeeping. Clinical duties vary according to state law including taking medical histories and recording vital signs, explaining treatment procedures to patients, preparing patients for examination, and assisting physicians during examination.

Upon completion of the medical assisting program, the student is granted a certificate of technology, is eligible to sit for the American Association of Medical Assistants (AAMA) Certification Examination and earn the AAMA credential of Certified Medical Assistant (CMA-AAMA).

The San Jacinto College medical assisting program is accredited by:

The Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
727-210-2350
www.caahep.org

Medical Assistant (4MED-ASST)

Certificate of Technology

North Campus

Pre-requisite Credit
HPRS 1201 Introduction to Health Professions .................................. 2
HPRS 1304 Basic Health Profession Skills ...................................... 3
Subtotal ........................................... 5

First Term Credit
HPRS 2302 Medical Terminology for Allied Health ...................... 3
MDCA 1302 Human Disease/Pathophysiology .......................... 3
MDCA 1309 Anatomy and Physiology for Medical Assistants ........................................ 3
MDCA 1321 Administrative Procedures ......................................... 3
MDCA 1343 Medical Insurance .................................................... 3
Subtotal ........................................... 15

Second Term Credit
MDCA 1205 Medical Law and Ethics ........................................ 2
POFT 1301 Business English .................................................... 3
MDCA 1348 Pharmacology and Administration of Medications ........................................ 3
MDCA 1310 Medical Assistant Interpersonal and Communication Skills ........................................ 3
MDCA 1417 Procedures in a Clinical Setting .......................... 4
Subtotal ........................................... 15

PostY1Summer Credit
MDCA 1254 Medical Assisting Credentialing Exam Review ........................................ 2
MDCA 1560 Clinical - Medical/Clinical Assistant ........................................ 5
Subtotal ........................................... 7

Certificate of Technology Total ........................................... 42

External Experience: MDCA 1560
Note: Students must pass each course listed in the certificate for Medical Assistant with a grade of C or higher to be eligible to receive a certificate of technology.

Medical Imaging

Central Campus

Medical imaging technology consists of two associate of applied sciences degrees and three certificate programs. The degree programs are the medical radiography program and the diagnostic medical sonography program. The certificate programs are the computed tomography program, the magnetic resonance imaging program, and the mammography program. Students selected for any of the medical imaging programs are required to submit a physical exam prior to admission. This physical exam must be consistent with the requirements of the teaching hospitals and agencies the student is assigned during clinical assignments and the performance standards required to function as a student imaging technologist. The exam will also include documentation of any communicable diseases along with immunity to Rubella, Measles, Mumps, and Varicella. Completion of the Hepatitis B series along with updated Tetanus, an annual TB screening and flu vaccine is required. In addition to meeting all other requirements, students entering a medical imaging program will be required to submit a criminal background check and drug screening completed by designated companies, show proof of health insurance, and CPR (American Heart Associate- Health Care Provider) certification. All results of the criminal background check and drug screen must be sent to San Jacinto College medical imaging department to the chair by the agency at dianne.phillips@sjcd.edu by the designated deadline. All the stated requirements must be submitted with each application submission.

Medical Radiography

Purpose Statement:
The purpose of the Medical Radiography Program is to educate and train students for entry level employment in radiography.

The program curriculum is a balance of general education and technical courses, as well as supervised clinical/practicum experience at local hospitals and clinics. The radiography courses utilize both theory and competency-based educational components designed to prepare the student to become a radiologic technologist specializing in radiography. A radiographer utilizes radiation to produce images of anatomical structures in the body.

Upon completion of the Medical Radiography Program the student is granted an associate of applied science degree, is eligible to apply for the certification examination given by the American Registry of Radiologic Technologists (ARRT), and may obtain a license from the Texas Department of State Health Services.

The Medical Radiography Program at San Jacinto College is accredited by:

Joint Review Committee on Education in Radiologic Technology (JRCERT)
20 N. Wacker Drive Suite 2850
Chicago, Illinois 60606
The program effectiveness goals of the Medical Radiography Program are as follows:
1. Graduates will pass the national certification examination on the 1st attempt.
2. Graduates will be gainfully employed.
3. Students will complete the program within two years of acceptance.
4. Employers will be satisfied with program graduates.
5. Graduates will be satisfied with the quality of their education received.

The student goals for the Medical Radiography Program are as follows:
1. Students will be clinically competent.
2. Students will possess critical thinking skills.
3. Students will communicate effectively.
4. Students will demonstrate professionalism.

The student learning outcomes for the Medical Radiography Program are as follows:
1. Students will demonstrate appropriate patient care.
2. Students will accurately adjust technical factors for radiographic examinations.
3. Students will properly position patients for radiographic examinations.
4. Students will demonstrate proper radiation safety.
5. Students will demonstrate ability to modify imaging examinations for non-routine patients.
6. Students will critique images for diagnostic quality.
7. Students will demonstrate effective oral communication skills.
8. Students will demonstrate effective written communication skills.
9. Students will demonstrate professional behavior.
10. Students will demonstrate ethical behavior.

Program Admission Criteria
This is a selective admission program. A limited number of students are admitted into the program bi-annually. Class size is determined by the availability of clinical space. Limited enrollment ensures a quality laboratory and clinical experience needed to become a competent entry level radiographer. To be considered for selection to the Medical Radiography Program the following steps must be completed:

1. Be admitted to San Jacinto College. Visit our website at http://www.sanjac.edu/appl
2. Provide Official Transcripts
   A. High School Diploma or GED Certificate required.
   B. Students with any transfer credits MUST have college transcripts analyzed by San Jacinto College (enrollment services transcript evaluation) prior to submitting an application.
   C. Medical Imaging Department Chair has final approval of all transferred courses that apply toward the degree in Medical Radiography.
   D. Transcripts from other colleges must be official and sent to:
      a) Office of Enrollment Services and b) Medical Radiography Office
3. Completion of all of the following prerequisite courses with a minimum of a “C” before admission to the program.
   • BIOL 2404 Introduction to Anatomy and Physiology or
   • BIOL 2301 Anatomy & Physiology I (Lec) and BIOL 2101 (Lab), and
   • BIOL 2302 Anatomy & Physiology II (Lec) and BIOL 2102 (Lab)
   • ENGL 1301 Composition I
   • RADR 1201 Introduction to Radiography
   • MATH 1314 College Algebra or
   • MATH 1333 Contemporary Mathematics for Technical Programs
   Any of the following support courses requires a minimum of a “C” also and if not achieved the course must be retaken until successful.
   • Social and Behavioral Sciences
   • Humanities or Fine Arts
   Academic science courses must not have been completed earlier than five (5) years prior to program acceptance. RADR 1201 must be complete no more than three (3) years prior to a student’s entry into the Medical Radiography Program. If either of these time requirements are exceeded the student must retake the course successful with a minimum grade of “C”. Higher level math such as Calculus may be evaluated for possible substitution if a student was placed out of college algebra. A higher level English course may be evaluated for possible substitution if a student has placed into a higher level English. Substitutions must be approved by the Department Chair and Dean of Health Sciences.
4. Completion of the program required entrance examination (HESI A2) must be submitted with application. A cumulative score of 70% and a score of 70% in each section is highly recommended.
5. Computer Literacy
   Students must be deemed computer literate before being accepted into the Medical Radiography Program by either completing the
Computer Literacy Skills Test at SJC with a score of 75 or better, by successfully completing ITSC 1309 or BCIS 1305 with a “C” or better, or course approved by the department chair. To schedule the computer literacy test please contact Computer Information Technology at 281-476-1501 ext. 2025 or contact the Medical Imaging Department by calling 281-476-1871 for more details.

6. Attend a MANDATORY information meeting as posted on the San Jacinto College Website or by calling 281-476-1871 for dates.

7. Receive and complete a Medical Imaging application by deadline of June 1 or October 15.

Selection Criteria
1. Students who apply for admission to the Medical Radiography Program will be selected based on the total score on the application rubric to include both GPA and HESI A2 entrance examination scores. Meeting minimal entry requirements does not guarantee program admission.

Application Periods
The Medical Radiography Program accepts applicants twice a year. Application periods are April 1 through June 1, for fall admission; and September 1 through October 15, for spring admission. Applicants will be notified regarding their selection for admission into the Medical Radiography Program. Applicants not selected for admission must re-apply to be considered for future admission. Applicants who are selected for admission into the Medical Radiography Program, but do not accept the position or do not complete the enrollment process must also re-apply. It is the student’s responsibility to stay current with any changes in program requirements.

Transfer Students:
Course work from another radiography program will be evaluated on an individual basis by the Department Chair and the Admission Appeals Committee. A grade of “C” or better is required on all transferred prerequisite, general education, and program specific courses. The student requesting transfer must submit a request by the Medical Radiography Admission Appeals Committee and be granted an interview. Transfer students from another program will be admitted on a space-available basis.

Student Progression:
If a student earns a grade of D, W, or F in a medical imaging (RADR) course, the student will not be permitted to continue or to graduate from the program until that course has been repeated and a grade of C or above has been earned. Three grades of D, F, or W in any combination from a RADR course will cause permanent suspension from the Medical Radiography Program. A student may appeal their suspension with the Medical Radiography Appeals Committee.

**Medical Radiography (3MED-RAD)**

**Associate of Applied Science Degree**

**Central Campus**

Students who do not enroll in the medical radiography program for one or more semesters after beginning the program must make written petition to the medical imaging department chair for re-entry into the program.

<table>
<thead>
<tr>
<th>Pre-requisite</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>RADR 1201 Introduction to Radiography</td>
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<tr>
<td>BIOL 2404 Introduction to Anatomy and Physiology</td>
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<tr>
<td>or BIOL 2301 Human Anatomy and Physiology I (Lec)</td>
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<tr>
<td>and BIOL 2101 Human Anatomy and Physiology I (Lab)</td>
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<td>and BIOL 2302 Anatomy and Physiology II (Lec)</td>
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<td>and BIOL 2102 Anatomy and Physiology II (Lab)</td>
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<td>MATH 1333 Contemporary Mathematics for Technical Programs</td>
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| Subtotal                                           | 12     |

**First Term**

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<tr>
<td>RADR 1203 Patient Care</td>
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<td>RADR 1202 Radiographic Image Evaluation I</td>
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<tr>
<td>RADR 1166 Practicum I</td>
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<td>RADR 1411 Basic Radiographic Procedures</td>
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<td>RADR 2209 Radiographic Imaging Equipment</td>
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| Subtotal                                           | 11     |

**Second Term**

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<td>RADR 2401 Intermediate Rad Procedures</td>
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<td>RADR 1313 Principles of Rad Imaging I</td>
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<td>RADR 1266 Practicum II</td>
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| Subtotal                                           | 11     |

**PostY1Summer**

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<td>RADR 2331 Advanced Radiographic Procedures</td>
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<td>RADR 2236 Special Patient Applications</td>
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<td>RADR 1267 Practicum III</td>
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<td>RADR 2305 Principles of Imaging II</td>
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| Subtotal                                           | 10     |

**Third Term**

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<td>RADR 2233 Advanced Medical Imaging</td>
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<td>RADR 2313 Radiation Biology and Protection</td>
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**Fourth Term**

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<tr>
<td>RADR 2267 Practicum V</td>
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<tr>
<td>RADR 2335 Radiologic Technology Seminar</td>
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<tr>
<td>RADR 2217 Radiographic Pathology</td>
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</table>

| Subtotal                                           | 10     |

**Associate of Applied Science Degree Total**

| 64 |

**Capstone Experience: Eligible for American Registry of Radiologic Technologists National Certification Exam.**

*Courses which satisfy the Humanities and Fine Arts, and the Social and Behavioral Sciences are listed in these sections in the Transfer Core Curriculum of the Educational Programs section of the Catalog.*

**Diagnostic Medical Sonography (3MED-SONO)**

**Associate of Applied Science Degree**

**Central Campus**

A medical sonographer is a person qualified to provide patient imaging using ultrasound under the supervision of a medical
doctor. The diagnostic medical sonography program prepares students to work in entry-level positions in hospitals and other health care facilities. Upon completion of the diagnostic medical program the student is granted an associate of applied science degree and is eligible to apply to take exams for the American Registry of Diagnostic medical Sonographers (ARDMS) and/or the American Registry of Radiologic Technologists (ARRT).

**Diagnostic Medical Sonography Program Goals:**
1. Graduates will be clinically competent sonographers.
2. Graduates will be eligible to apply for, take and pass the American Registry of Diagnostic Medical Sonography certification exams upon completion of the program.
3. Graduates will be able to find employment.
4. Graduates will be satisfied with their education.
5. Employers will be satisfied with program graduates.

**Admission Criteria:**
A limited number of students are admitted into the program annually. Class size is determined by the availability of clinical space. A two year or higher allied health degree/certificate in a patient care related area or a bachelor’s degree (any major) is required. All applicants must have completed the prerequisite courses prior to admission to the program. The applicant must submit a current résumé, official transcripts, and two letters of recommendation. The applicant must complete and submit an application to the medical imaging department. Applicants must attend a MANDATORY information meeting as posted on the San Jacinto College website or by calling 281-476-1871 for dates. The applicant must also submit required health records, proof of health insurance, CPR (American Heart Associate- Health Care Provider), criminal background check, and drug screen as stated for all medical imaging students – see section directly under Medical Imaging Technology and Central Campus for an explanation of requirements. Acceptance into the sonography program is determined after review of the application and completion of all requirements. Prospective applicants should email kristi.chachere@sjcd.edu or call the medical imaging department at 281-476-1871 for additional information.

**Pre-requisite**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PSYC 2301 General Psychology</td>
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<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>*Humanities or Fine Arts</td>
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</table>
| BIOL 2404 Introduction to Anatomy and Physiology or  
  BIOL 2301 Human Anatomy and Physiology I (Lec) and  
  BIOL 2101 Human Anatomy and Physiology I (Lab)    | 4      |
| MATH 1314 College Algebra or                  |        |
| MATH 1333 Contemporary Mathematics for        |        |
| Technical Programs                             |        |
| RADR 2209 Radiographic Imaging Equipment or   |        |
| PHYS 1301 College Physics I (Lec) and         |        |
| PHYS 1101 College Physics I (Lab)             | 2      |
| SPCH 1315 Public Speaking or                  |        |
| SPCH 1318 Interpersonal Communications        | 3      |
| Subtotal                                      | 21     |

**First Term**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>DMSO 1110 Introduction to Sonography</td>
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<tr>
<td>DMSO 1302 Basic Ultrasound Physics</td>
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<tr>
<td>DMSO 1441 Abdominopelvic Sonography</td>
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<td>DMSO 1251 Sonographic Sectional Anatomy</td>
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**Second Term**

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<tr>
<td>DMSO 1266 Practicum I -</td>
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<td>Diagnostic Medical Sonography</td>
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<td>DMSO 2405 Sonography of Obstetrics/Gynecology</td>
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<td>DMSO 2253 Sonography Superficial Structures</td>
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<td>DMSO 1355 Sonographic Pathophysiology</td>
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**Third Term**

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<tr>
<td>DMSO 2245 Advanced Sonography Practices</td>
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<td>DMSO 2342 Sonography of High Risk Obstetrics</td>
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<td>DMSO 2343 Advanced Ultrasound Physics</td>
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**Fourth Term**

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<th>Course</th>
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<tbody>
<tr>
<td>DMSO 1367 Practicum III -</td>
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<td>Diagnostic Medical Sonography</td>
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<td>DMSO 2230 Advanced Ultrasound Review</td>
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**Associate of Applied Science Degree Total**

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<tr>
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<td>60</td>
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</table>

**Capstone Experience:** DMSO 1367

*Courses which satisfy the Humanities or Fine Arts are listed in these sections in the Transfer Core Curriculum of the Educational Programs section of the catalog.

**Magnetic Resonance Imaging (AMRAD-MRI)**

**Advanced Technical Certificate**

**Central Campus**

The MRI program builds a foundation of general principles for learning to operate magnetic resonance imaging equipment. The program focuses on building a sound understanding of the underlying scientific theory and routine clinical practice leading to the MRI certification exam. The MRI program also emphasizes the fundamental principle of magnetism and interaction of living matter with magnetic fields as well as introducing the concepts and scientific principles employed in MRI.

Minimum program admission criteria: Applicants must be ARRT registered in one of the following: radiography, nuclear medicine, or radiation therapy or registry eligible and hold a Texas Department of State Health Services Medical Radiologic Technologist License. The applicant must complete and submit an application to the medical imaging department. The
applicant must also submit required health records, proof of health insurance, CPR (American Heart Associate-Health Care Provider), criminal background check, and drug screen as stated for all Medical Imaging students – see section directly under medical imaging technology and Central Campus for an explanation of requirements. Acceptance into the MRI program is determined after review of the application and completion of requirements. Prospective participants should email deborah.dice@sjcd.edu or call the medical imaging department at 281-476-1871 for additional information.

First Term

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MRIT 2330 Principles of Magnetic Resonance Imaging</td>
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<td>MRIT 2334 Magnetic Resonance Equipment and Methodology</td>
<td>3</td>
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<tr>
<td>MRIT 2360 Clinical - Radiology Technology/Science - Radiographer</td>
<td>3</td>
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<tr>
<td>MRIT 2461 Clinical - Radiology Technology/Science - Radiographer</td>
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<tr>
<td>RADR 2340 Sectional Anatomy for Med Imaq</td>
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</table>

Subtotal 16

Enhanced Skills Certificate Total 16

Capstone Experience: MRIT 2461

Computed Tomography (EMRAD-CT)

Enhanced Skills Certificate

Central Campus

The computed tomography (CT) program includes advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. While enrolled in the CT program practical experience is simultaneously related to theory.

Minimum program admission criteria:

Applicants must be American Registry of Radiologic Technologists (ARRT) registered in either Radiography or Nuclear Medicine, and hold a Texas Department of State Health Services Medical Radiologic Technologist License. The student must complete and submit an application to the medical imaging department. The applicant must also submit required health records, proof of health insurance, CPR (American Heart Associate-Health Care Provider), criminal background check, and drug screen as stated for all medical imaging students – see section directly under Medical Imaging Technology and Central Campus for an explanation of requirements. Acceptance into the computed tomography program is determined after review of the application and completion of requirements. Prospective participants should email tonia.shivers@sjcd.edu or call the medical imaging department at 281-476-1871 for additional information.

First Term

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<thead>
<tr>
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<tbody>
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<td>RADR 2340 Sectional Anatomy for Medical Imaging</td>
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<td>CTMT 2336 Computed Tomography Equipment and Med ...</td>
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<tr>
<td>CTMT 2360 Clinical I-Computed Tomography Technology/Technician</td>
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<tr>
<td>CTMT 2361 Clinical II-Computed Tomography Technology/Technician</td>
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</table>

Subtotal 12

Enhanced Skills Certificate Total 12

Capstone Experience: CTMT 2361

Mammography Enhanced (EMRAD-MAMM)

Enhanced Skills Certificate

Central Campus

The mammography program is designed to prepare the registered radiologic technologist to enter the advanced field of mammography. The objective of the program is to provide the registered radiologic technologist with the training, knowledge, and skills needed to prepare for and successfully pass the mammography post primary examination offered by ARRT; in addition for entry-level employment in mammography.

A mammographer uses specialized X-ray equipment to obtain diagnostic breast images and breast tissue biopsies. This specialized technologist is pivotal in the diagnosis of breast tissue abnormalities in both men and women. Students will learn to position patients and manipulate equipment to provide quality images. Furthermore, students will develop an understanding of anatomy, pathology, communication skills and specialty equipment.

The mammography courses are offered each Spring and Fall semesters. The entire program length is 16 weeks. Lecture and laboratory are offered the first eight weeks as evening classes. Clinical rotations are offered the second eight weeks as day time rotations, averaging 20 hours a week.

Minimum program admission criteria:

Applicants must be American Registry of Radiologic Technologists (ARRT) registered in Radiography and hold a Texas Department of State Health Services Medical Radiologic Technologist License. The applicant must complete and submit an application to the medical imaging department. Acceptance into the mammography program is determined after review of the application and completion of requirements. The applicant must also submit required health records, proof of health insurance, CPR (American Heart Associate-Health Care Provider),
criminal background check, and drug screen as stated for all medical imaging students – see section directly under medical imaging technology and Central Campus for an explanation of requirements. Acceptance into the mammography program is determined after review of the application and completion of requirements. Prospective participants should email liza.velasquez@sjcd.edu or call the medical imaging department at 281-476-1871 for additional information.

First Term Credit
MAMT 2333 Essentials of Mammography .................................. 3
MAMT 2363 Clinical - Mammography Technology/Technician .................... 3
Subtotal 6
Enhanced Skills Certificate Total 6
Capstone Experience: MAMT 2363

Medical Laboratory Technology

Central Campus
A criminal background check and/or alcohol and drug screening is required of all health science students attending clinical courses, or practicum, and may be required prior to admission to the program.

The medical laboratory technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 W. Bryn Mawr Ave., Suite 670, Chicago, Illinois, 60631, 773.714.8880. Upon completion of the program, the student is granted an associate of applied science degree and is eligible to apply for the certification examination given by the Board of Registry of the American Society of Clinical Pathologists and/or the National Certification Agency for Medical Laboratory Personnel.

The program curriculum is a balance of general education and technical courses, as well as supervised practicum work at area hospitals. This provides the student an opportunity for educational development, as well as skill competency.

Prior to entering the medical laboratory technology program, students need to take prerequisite courses: BIOL 2404, and TECM 1301 or MATH 1314.

Medical laboratory technology students must earn a grade of C or above in each medical laboratory technology course and required science courses, and maintain an overall grade point average of at least 2.0 in order to graduate from the medical laboratory technology program.

If a student earns a grade of D, W, or F in a medical laboratory technology or science course, the student will be required to repeat the course in which the unsatisfactory grade was earned and pass that course with a grade of C or better in order to progress.

Clinical practicum absences must be made up within the term in which they occur.

Because clinical practicum space is limited, students are admitted on a competitive basis. Applicants or those seeking additional information should contact the medical laboratory program director or the department chair for allied health. Applications for admission to the Fall term class are accepted beginning in January.

Students are required to purchase uniforms and accessories. Each student is responsible for his/her own transportation to the clinical areas. Each student who registers for medical laboratory technology is required to purchase student liability insurance the term he/she starts the clinical laboratory practicum.

Philosophy
The philosophy of the Department of Clinical Laboratory Science (CLS) parallels the philosophy of San Jacinto Community College District. Medical laboratory technology is that allied health care field which performs laboratory test procedures and analyses used in the diagnosis, treatment, and prognosis of disease, as well as the maintenance of health. Medical laboratory technicians practice their specialty under the direction of licensed physicians in various settings which include hospitals, private and public health clinics, and industrial laboratories.

The medical laboratory technician must be able to apply the knowledge acquired through academic studies and student labs to the clinical setting so that meaningful test results will be obtained to report to the patient's physician. Graduates of the medical laboratory technology program will be prepared to practice medical laboratory technology in all major areas of the clinical laboratory as contributing members of the health care team.

Program Admission Criteria
Students who apply for admission to the program of medical laboratory technology (MLT) will be selected on the basis of their highest ACT/SAT test scores or their highest grade point average at San Jacinto Community College District, dependent upon the option under which they apply (Option A or Option B following).

Option A: SAT score of 680 or above on test taken prior to April 1995 or a score of 810 or above on an SAT taken on or after April 1, 1995; or an ACT composite score of 18 or above (ACT composite score of 15 or above if taken before October 1989).

Option B: Applicants must complete at San Jacinto Community College District 10 semester hours as specified below with no grade lower than C.
BIOL 2401, ENGL 1301, and MATH 1314 or MATH 1333

Applicants seeking admission by Option B may petition the admission coordinator to take a more advanced biology, mathematics or English course if they have completed the above-stated courses with a grade of C or above at another accredited institution.

Students must apply for admission to the program of medical laboratory technology by submitting a formal application and all required official documents to the Office of Enrollment Services.

Applicants to the medical laboratory program will be notified by mail regarding their program admission status. Applicants who are not selected for admission to the medical laboratory technology program must re-apply before the next term. Applicants who are accepted for admission to the medical laboratory technology program, but who do not enroll, must re-apply. Applicants must meet the College’s general admission requirements as well as the program admission criteria.

After acceptance into the program, an applicant must have a physical examination by a licensed physician (M.D., D.O.) and an orientation with a member of the department of clinical laboratory science.

Students are required to purchase uniforms and accessories.

**Medical Laboratory Technology (3MEDLABT)**

**Associate of Applied Science Degree**

**Central Campus**

**Pre-requisite**

<table>
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<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BIOL 2404 Introduction to Anatomy and Physiology</td>
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<tr>
<td>*TECM 1301 Industrial Mathematics or MATH 1314 College Algebra</td>
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**Subtotal** 7

**First Term**

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<tbody>
<tr>
<td>MLAB 1101 Introduction to Clinical Laboratory Science</td>
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<tr>
<td>PLAB 1223 Phlebotomy</td>
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<tr>
<td>MLAB 1415 Hematology</td>
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<td>ENGL 1301 Composition I</td>
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**Subtotal** 10

**Second Term**

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<th>Course</th>
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<tbody>
<tr>
<td>MLAB 1227 Coagulation</td>
<td>2</td>
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<tr>
<td>MLAB 1235 Immunology/Serology</td>
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<tr>
<td>MLAB 1311 Urinalysis and Body Fluids</td>
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<tr>
<td>MLAB 2434 Microbiology</td>
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<tr>
<td>SCIT 1395 Special Topics in Analytical Chemistry</td>
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**Subtotal** 14

**PostY1Summer**

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<tr>
<td>MLAB 2166 Practicum I - Medical Laboratory Technician</td>
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<td>MLAB 2431 Immunohematology</td>
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**Subtotal** 5

**Third Term**

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<tbody>
<tr>
<td>MLAB 1231 Parasitology/Mycology</td>
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<tr>
<td>MLAB 2401 Clinical Chemistry</td>
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<td>ITSC 1309 Integrated Software Applications I</td>
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<td>BCIS 1305 Business Computer Applications</td>
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**Subtotal** 12

**Fourth Term**

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<tr>
<td>MLAB 2238 Advanced Topics in Medical Laboratory Technician</td>
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<tr>
<td>MLAB 2267 Practicum III - Medical Laboratory Technician</td>
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<tr>
<td>PSYC 2301 General Psychology</td>
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<td><strong>Humanities or Fine Arts</strong></td>
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**Subtotal** 10

**PostY2Summer**

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<tr>
<td>MLAB 2266 Practicum II - Medical Laboratory Technician</td>
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**Subtotal** 2

**Associate of Applied Science Degree Total** 60

**Capstone Experience: MLAB 2238**

*Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.

**Courses which satisfy this requirement are listed in the Humanities and Fine Arts sections of the Transfer Core Curriculum in the Educational Programs section of the catalog.

**Mental Health Services**

Mental health technician training prepares students to care for mentally impaired or emotionally disturbed individuals following physician instructions and hospital procedures. Potential work opportunities include:

- Aides within inpatient/outpatient psychiatric facilities
- Day treatment centers
- Counseling centers
- Rehabilitation facilities

The mental health services program is designed to train mental health technicians and prepare individuals to meet the requirements for testing as a Licensed Chemical Dependency Counselor (L.C.D.C.). Each program offers a practicum class which allows students to apply classroom skills in a treatment setting.

The mental health technician (psychiatric aide/technician) certificate of technology prepares students to work with disturbed individuals following physician instructions and hospital procedures. Psychiatric aides and technicians observe and record patient behavior and present findings to counselors, nurses, and other professional staff. They intervene in crisis situations, actively moderate client behavior, and assist with feeding, moving, dressing patients, personal hygiene, and activities of daily living.

The substance abuse counseling certificate of technology prepares individuals to enter the field of human services and provide specialized services to individuals and their families experiencing the effects of substance abuse. Graduates will be able to identify appropriate assessments, diagnosis, and treatment of individuals who are, or have been, engaged in substance abuse. The program,
plus 4,000 hours of paid work experience, provides individuals with the necessary educational and employment requirements to become eligible for testing as a Licensed Chemical Dependency Counselor (L.C.D.C.).

The combination of the certificates of technology and general education leads to an Associate of Applied Science in mental health clinical and counseling psychology. Students who do not have an associate degree (or higher) in a behaviorally related field will not be eligible for full licensure in the State of Texas. An associate degree (or higher) is required for full licensure. A student can complete the certificate of technology course work, enter the workforce as a counseling intern and continue course work towards an associate degree before receiving their L.C.D.C.

### Mental Health-Substance Abuse Counseling (6MH-SAC)

#### Occupational Certificate

##### North Campus

<table>
<thead>
<tr>
<th>First Term</th>
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<tbody>
<tr>
<td>DAAC 1311 Counseling Theories</td>
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<tr>
<td>DAAC 2341 Counseling Alcohol and Other Drug Addictions</td>
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<tr>
<td>PSYT 1371 Mental Health Legal and Ethical Issues</td>
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<tr>
<td>DAAC 1304 Pharmacology of Addiction</td>
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<tr>
<td>CMSW 1341 Behavior Modification and Cognitive Disorder or DAAC 2307 Addicted Family Intervention or SCWK 2301 Assessment and Case Management</td>
<td>3</td>
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<tr>
<td>DAAC 2366 Practicum-Substance Abuse/Addiction Counseling</td>
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<td><strong>Subtotal</strong></td>
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</table>

##### Capstone Experience: DAAC 2366

**Notes:** Students must pass each course listed in the degree or certificate for Mental Health Services with a grade of C or higher to be eligible to receive a degree or certificate.

### Substance Abuse Counseling (5MH-SAC)

#### Level 2 Certificate

##### North Campus

<table>
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<tbody>
<tr>
<td>SOCW 2361 Introduction to Social Work</td>
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<td>DAAC 1311 Counseling Theories</td>
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<tr>
<td>DAAC 1304 Pharmacology of Addiction</td>
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<td>PSYC 2301 General Psychology</td>
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##### Second Term

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<td>PSYT 2331 Abnormal Psychology</td>
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<td>DAAC 2307 Addicted Family Intervention</td>
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<tr>
<td>CMSW 1341 Behavior Modification with Cognitive Disorder</td>
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<tr>
<td>SCWK 2301 Assessment and Case Management</td>
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<tr>
<td>DAAC 2341 Counseling Alcohol and Other Drug Addictions</td>
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##### Third Term

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<tr>
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##### Level 2 Certificate Total

| Level 2 Certificate Total | 33 |

### Mental Health Technician (5MH-TECH)

#### Level 2 Certificate

##### North Campus

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<td>SOCW 2361 Introduction to Social Work</td>
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<td>PSYC 2301 General Psychology</td>
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<td>PSYT 1371 Mental Health Legal and Ethical Issues</td>
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<td>CMSW 1341 Behavior Modification with Cognitive Disorder</td>
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##### Second Term

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<tr>
<td>PSYT 2331 Abnormal Psychology</td>
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<tr>
<td>SCWK 2301 Assessment and Case Management</td>
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<tr>
<td>PSYT 1471 Basic Nursing Skills</td>
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<tr>
<td>PSYT 2301 Psychology of Group Dynamics</td>
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<tr>
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</table>

##### Third Term

<table>
<thead>
<tr>
<th>Credit</th>
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<tbody>
<tr>
<td>PMHS 2366 Practicum - Psychiatric/Mental Health Services Technician</td>
</tr>
</tbody>
</table>

##### Level 2 Certificate Total

| Level 2 Certificate Total | 31 |

### Mental Health Clinical and Counseling Psychology (3MH-PSYC)

#### Associate of Applied Science Degree

##### First Term

<table>
<thead>
<tr>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCW 2361 Introduction to Social Work</td>
</tr>
<tr>
<td>PSYC 2301 General Psychology</td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
</tr>
</tbody>
</table>

---

**Note:** Students must pass each course listed in the degree or certificate for Mental Health Services with a grade of C or higher to be eligible to receive a degree or certificate.
PSYT 1371 Mental Health Legal and Ethical Issues ................. 3
CMSW 1341 Behavior Modification and Cognitive Disorder 3
PHED Activity ........................................................................ 1

Subtotal ................................................................. 16

Second Term Credit
PHED Activity ................................................................. 1
PSYT 2331 Abnormal Psychology ........................................... 3
SCWK 2301 Assessment and Case Management 3
PSYT 1471 Basic Nursing Skills for Mental Health/
Psychiatric Technicians ......................................................... 4
PSYT 2301 Psychology of Group Dynamics ............................ 3

Subtotal ................................................................. 14

PostY1Summer Credit
PMHS 2366 Practicum - Psychiatric/Mental Health/Services Technician ......................................................... 3

Subtotal ................................................................. 3

Third Term Credit
SPCH 1318 Interpersonal Communications ............................ 3
DAAC 1304 Pharmacology of Addiction ................................. 3
DAAC 1311 Counseling Theories ........................................... 3
MATH 1314 College Algebra or
MATH 1333 Contemporary Mathematics for
Technical Programs ................................................................. 3

Subtotal ................................................................. 12

Fourth Term Credit
*Humanities or Fine Arts ......................................................... 3
DAAC 2341 Counseling Alcohol and Other Drug Addictions ... 3
ENGL 1302 Composition II or
ENGL 2311 Technical and Business Writing ............................. 3

Subtotal ................................................................. 12

PostY2Summer Credit
DAAC 2366 Practicum - Substance Abuse/
Addiction Counseling ................................................................. 3

Subtotal ................................................................. 3

Associate of Applied Science Degree Total ..................... 60

Capstone Experience: PMHS 2366 and DAAC 2366

Music

The audio engineering curriculum is designed for students seeking careers as sound recording or sound reinforcement engineers. Employment opportunities exist in recording studios, television and radio stations, convention centers, hotels, churches and other private entities. The training places a heavy emphasis on the theory and hands-on application of recording, mixing, and effects-processing equipment. Also required are musical proficiency and an understanding of business and music business systems.

Sound Recording (6MUS-SOUND)

Occupational Certificate
Central Campus

First Term Credit
MUSB 1305 Survey of Music Business ........................................... 3
MUSC 1323 Audio Electronics ..................................................... 3
MUSC 1327 Audio Engineering I ..................................................... 3

Subtotal ................................................................. 9

Second Term Credit
MUSC 1405 Live Sound I or
MUSC 2101 Audio Engr Practices and
MUSC 1331 Musical Instrument Digital Interface I .............. 4
MUSC 2427 Audio Engineering II or
MUSC 2403 Live Sound II ......................................................... 4

Subtotal ................................................................. 8

Occupational Certificate Total ........................................... 17

Capstone Experience: MUSC 2101

Verification of workplace competencies.
*Audio Engineering I and II may not be taken concurrently.

Broadcast Audio Technology (4MUS-BRCST)

Certificate of Technology
Central Campus

In a unique cooperative effort, San Jacinto College District (SJC) and Alvin Community College (ACC) are offering a joint Certificate of Technology in Broadcast Audio Technology.

First Term Credit
MUSC 1327 Audio Engineering I ..................................................... 3
RTVB 1380 Cooperative Education-Radio and
Television Broadcasting ................................................................. 3
MUSC 1331 Musical Instrument Digital Interface ..................... 3
RTVB 1355 Radio and Television Announcing .......................... 3

Subtotal ................................................................. 12

Second Term Credit
MUSC 2427 Techniques of Audio Engineering II .................... 4
MUSC 1323 Audio Electronics Troubleshooting ......................... 3
RTVB 1317 Survey of Electronic Media ........................................... 3
RTVB 2380 Cooperative Education-Radio and
Television Broadcasting ................................................................. 3
MUSC 2101 Audio Engineering Practices ..................................... 1

Subtotal ................................................................. 14

Third Term Credit
MUSC 2447 Audio Engineering III .............................................. 4
RTVB 1409 Audio/Radio Production I ............................................. 4
RTVB 1391 Special Topics in Radio and
Television Broadcasting ................................................................. 3
MUSC 2386 Internship - Recording Arts Technology/Technician ....... 3

Subtotal ................................................................. 14

Certificate of Technology Total ........................................... 40

Capstone Experience: MUSC 2386, RTVB 1391
**Techniques of Audio Engineering (4MUS-AUDI)**

**Certificate of Technology**  
**Central Campus**

<table>
<thead>
<tr>
<th>Term</th>
<th>Credit</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Term</td>
<td></td>
<td><strong>MUSI 1301 Music Fundamentals ..................................................</strong> 3</td>
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<tr>
<td></td>
<td></td>
<td><strong>MUSI 1181 Class Piano I ..........................................................</strong> 1</td>
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<td></td>
<td></td>
<td><strong>MUSB 1305 Survey of Music Business .............................................</strong> 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MUAP Private Music Lesson or</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MUSI 1183 Class Voice I or</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MUSI 1188 Class Percussion or</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MUSI 1192 Class Guitar I ..........................................................</strong> 1</td>
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<td><strong>MUSC 1327 Audio Engineering I ....................................................</strong> 3</td>
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<td><strong>Subtotal</strong></td>
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<tr>
<td>Second Term</td>
<td></td>
<td><strong>MUSC 2427 Audio Engineering II ..................................................</strong> 4</td>
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<td></td>
<td></td>
<td><strong>MUAP Private Lesson</strong></td>
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<td></td>
<td><strong>MUSC 1323 Audio Electronics Troubleshooting ................................</strong> 3</td>
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<td><strong>MUSC 1331 Musical Instrument Digital Interface I ................................</strong> 3</td>
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<td>Third Term</td>
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<td><strong>MUSC 2386 Internship - Recording Arts</strong></td>
</tr>
<tr>
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<td></td>
<td><strong>Technology/Technician</strong></td>
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<td><strong>MUSC 2101 Audio Engineering Practices .........................................</strong> 1</td>
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<td>Fourth Term</td>
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<td><strong>MUSC 2403 Live Sound II ...........................................................</strong> 4</td>
</tr>
<tr>
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<td></td>
<td><strong>MUSC 2447 Audio Engineering III or</strong></td>
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</tbody>
</table>

**Certificate of Technology Total** 35  

**Capstone Experience: MUSC 2386**

**Verification of workplace competencies.**

**Non-Destructive Testing Technology (MWLD-NDT)**

**Non-Destructive Testing Technology**

** Marketable skills Achievement Award**

**Central Campus**

<table>
<thead>
<tr>
<th>Term</th>
<th>Credit</th>
<th>Courses</th>
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<tr>
<td>First Term</td>
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<td><strong>MUSC 2427 Audio Engineering II ..................................................</strong> 4</td>
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<tr>
<td></td>
<td></td>
<td><strong>ENGL 2311 Technical Report Writing or</strong></td>
</tr>
<tr>
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<td></td>
<td><strong>ENGL 1302 Composition II ................................................................</strong> 3</td>
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<td><strong>MUSC 1331 Musical Instrument Digital Interface I ................................</strong> 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MUSI 1306 Listening to Music or</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MUSI 1310 American Popular Music ................................................</strong> 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MUEN Ensemble ..................................................................................</strong> 1</td>
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<td><strong>Subtotal</strong></td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>PostY1Summer</td>
<td></td>
<td><strong>MATH 1314 College Algebra or</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MATH 1333 Contemporary Math for Tech. ............................................</strong> 3</td>
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<tr>
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<td></td>
<td><strong>MUSC 2101 Audio Engineering Practices .........................................</strong> 1</td>
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<td></td>
<td><strong>MUEN Ensemble or MUAP Private Lesson .............................................</strong> 2</td>
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<tr>
<td></td>
<td></td>
<td><strong>MUAP Private Lesson</strong></td>
</tr>
<tr>
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<td></td>
<td><strong>MUSC 2386 Internship - Recording Arts</strong></td>
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<td></td>
<td><strong>Technology/Technician</strong></td>
</tr>
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<td></td>
<td></td>
<td><strong>MUSC 2447 Audio Engineering III or</strong></td>
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<tr>
<td>Fourth Term</td>
<td></td>
<td><strong>MUSC 1405 Live Sound I or</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MUSC 2355 Musical Instrument Digital Interface II and</strong></td>
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<td></td>
<td></td>
<td><strong>MUSC 2101 Audio Engineering Practices .........................................</strong> 4</td>
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<td></td>
<td><strong>MUSI 1211 Theory of Music I ................................................................</strong> 2</td>
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<td></td>
<td></td>
<td><strong>MUSI 1216 Ear Training Sight Singing I ............................................</strong> 2</td>
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<td><strong>MUAP Private Lesson</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MUSC 2101 Audio Engineering Practices .........................................</strong> 1</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

**Certificate of Technology Total** 60  

**Capstone Experience: MUSC 2386**

**Verification of workplace competencies.**

*Subject to placement testing, a student placing out of MUSI 1301 may take MUSI 1211, 1212, 1216, and 1217 during the first year and substitute a three-hour elective for MUSI 1301.*

**Courses which satisfy this requirement are listed in the Social and Behavioral Sciences section of the Transfer Core Curriculum.**

Students may substitute private piano for class piano. A student whose major instrument is piano should substitute another secondary instrument.

Students planning to transfer into a bachelor’s degree program in music may substitute MUSI 1307 Survey of Music Literature.
TECHNICAL PROGRAMS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDTE 1405 Introduction to Ultrasonics</td>
<td>4</td>
</tr>
<tr>
<td>METL 1305 Welding Metallurgy I</td>
<td>3</td>
</tr>
<tr>
<td>NDTE 1410 Liquid Penetrant/Magnetic Particle Testing</td>
<td>4</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>11</strong></td>
</tr>
<tr>
<td><strong>Marketable Skills Achievement Award Total</strong></td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td><strong>Quality Assurance Technology (6WLD-QAT)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Occupational Certificate</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Central Campus</strong></td>
<td></td>
</tr>
<tr>
<td>Persons interested in the field of quality assurance are introduced to Total Quality Management (TQM) concepts and applications as well as statistical testing methods. The students can then use these concepts and methods in industries utilizing auditing practices, quality controls, and inspection techniques.</td>
<td></td>
</tr>
<tr>
<td><strong>First Term</strong></td>
<td></td>
</tr>
<tr>
<td>QCTC 1343 Quality Assurance</td>
<td>3</td>
</tr>
<tr>
<td>QCTC 1378 Metrology</td>
<td>3</td>
</tr>
<tr>
<td>QCTC 1376 Testing and Inspection Systems</td>
<td>3</td>
</tr>
<tr>
<td>QCTC 2331 Standards</td>
<td>3</td>
</tr>
<tr>
<td>QCTC 1341 Statistical Process Control or PTAC 2314 Principles of Quality</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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</tr>
<tr>
<td><strong>Occupational Certificate Total</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>Capstone Experience: QCTC 1341 or PTAC 2314</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td><strong>Non-Destructive Testing Technology (4WLD-NDT)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Certificate of Technology</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Central Campus</strong></td>
<td></td>
</tr>
<tr>
<td>Students pursuing the non-destructive testing courses can earn the technical training necessary to begin working in the inspection field. San Jacinto College offers the required classroom training in the basic five methods of MT, PT, VT, UT, and ET, required by the American Society of Non-Destructive Testing Society guidelines, SNT-TC-1A. Training in these areas prepares students for entry-level work in conventional non-destructive testing careers and provides additional knowledge for current inspectors or fabricators.</td>
<td></td>
</tr>
<tr>
<td><strong>First Term</strong></td>
<td></td>
</tr>
<tr>
<td>NDTE 1405 Introduction to Ultrasonics: Level 1 &amp; 2</td>
<td>4</td>
</tr>
<tr>
<td>METL 1305 Welding Metallurgy I</td>
<td>3</td>
</tr>
<tr>
<td>NDTE 1410 Liquid Penetrant/Magnetic Particle Testing: Level 1 &amp; 2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>11</strong></td>
</tr>
<tr>
<td><strong>Second Term</strong></td>
<td></td>
</tr>
<tr>
<td>QCTC 2331 Standards</td>
<td>3</td>
</tr>
<tr>
<td>QCTC 1376 Testing and Inspection Systems</td>
<td>3</td>
</tr>
<tr>
<td>NDTE 1440 Eddy Current Testing</td>
<td>4</td>
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<tr>
<td>NDTE 1354 Intermediate Unltrasonics:</td>
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<tr>
<td>Flaw Detection and Sizing</td>
<td>3</td>
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<td><strong>Subtotal</strong></td>
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<td><strong>Certificate of Technology Total</strong></td>
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<tr>
<td><strong>Capstone Experience: QCTC 2331</strong></td>
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<th>Course</th>
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<tbody>
<tr>
<td><strong>Non-Destructive Testing Technology (5WLD-NDT)</strong></td>
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<tr>
<td><strong>Level 2 Certificate</strong></td>
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<tr>
<td><strong>Central Campus</strong></td>
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<tr>
<td><strong>First Term</strong></td>
<td></td>
</tr>
<tr>
<td>NDTE 1405 Introduction to Ultrasonics: Level 1 &amp; 2</td>
<td>4</td>
</tr>
<tr>
<td>METL 1305 Welding Metallurgy I</td>
<td>3</td>
</tr>
<tr>
<td>NDTE 1410 Liquid Penetrant/Magnetic Particle Testing: Level 1 &amp; 2</td>
<td>4</td>
</tr>
<tr>
<td>QCTC 2331 Standards</td>
<td>3</td>
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<td><strong>Subtotal</strong></td>
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<td><strong>Second Term</strong></td>
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</tr>
<tr>
<td>QCTC 1376 Testing and Inspection Systems</td>
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<tr>
<td>NDTE 1440 Eddy Current Testing</td>
<td>4</td>
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<tr>
<td>NDTE 1301 Film Interpretation of Weldments</td>
<td>3</td>
</tr>
<tr>
<td>NDTE 1354 Intermediate Unltrasonics:</td>
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<tr>
<td>Flaw Detection and Sizing</td>
<td>3</td>
</tr>
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<td><strong>Subtotal</strong></td>
<td><strong>13</strong></td>
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<tr>
<td><strong>PostY1Summer</strong></td>
<td></td>
</tr>
<tr>
<td>METL 1313 Introduction to Corrosion</td>
<td>3</td>
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<tr>
<td>QCTC 1378 Metrology</td>
<td>3</td>
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<td><strong>Subtotal</strong></td>
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<td><strong>Third Term</strong></td>
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</tr>
<tr>
<td>METL 2335 Welding Metallurgy II</td>
<td>3</td>
</tr>
<tr>
<td>NDTE 2301 Advanced Ultrasonics</td>
<td>3</td>
</tr>
<tr>
<td>NDTE 2311 Preparation for Certified Welding Inspector Exam</td>
<td>3</td>
</tr>
<tr>
<td>NDTE 2339 Pressure Piping Inspection or WLDG 2380</td>
<td>3</td>
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<td><strong>Certificate of Technology Total</strong></td>
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<tr>
<td><strong>Capstone Experience: METL 2335</strong></td>
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<table>
<thead>
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<tr>
<td><strong>Non-Destructive Testing Technology (3WLD-NDT)</strong></td>
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<tr>
<td><strong>Associate of Applied Science Degree</strong></td>
<td></td>
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<tr>
<td><strong>Central Campus</strong></td>
<td></td>
</tr>
<tr>
<td>This program is designed to offer students entry-level skills in quality assurance/quality control of welded and metal products. Students may make this degree relevant to such industries as petrochemical construction and/or maintenance, nuclear construction, machining and metal working, underwater construction technologies, and aviation maintenance. Training in this program conforms to the American Society of Non-Destructive Testing Guidelines, SNT-TC-1A.</td>
<td></td>
</tr>
<tr>
<td><strong>First Term</strong></td>
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</tr>
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<td>NDTE 1405 Introduction to Ultrasonics: Level 1 &amp; 2</td>
<td>4</td>
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<tr>
<td>METL 1305 Welding Metallurgy I</td>
<td>3</td>
</tr>
<tr>
<td>NDTE 1410 Liquid Penetrant/Magnetic Particle Testing: Level 1 &amp; 2</td>
<td>4</td>
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<tr>
<td>Speech</td>
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<td><strong>Subtotal</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>
San Jacinto College offers two associate of applied science degrees that qualifies the graduate to make application for the National Counsel Licensure Examination for Registered Nurse (NCLEX-RN). The associate degree nursing programs are:

Approved by:
The Texas Board of Nursing (BON). The contact information is:
Texas Board of Nursing 333 Guadalupe #3-460, Austin, Texas 8701. Office (512) 305-7400 Fax (512) 305-7401

and, Accredited by:
The Accreditation Commission for Education in Nursing (ACEN) the contact information is ACEN 3343 Peachtree Road NE Suite 850 Atlanta, Georgia 30326. Office (404) 975-9000 Fax (404) 975-5020.

The programs are:

- **Generic Associate Degree Nursing (ADN)** program, offered on the Central and North Campuses, is a four-semester program designed for the novice in health care aspiring to become a registered nurse (RN). The North Campus serves as an extension site of the Central Campus ADN program. The program is four semesters.

- Transition to RN program, offered at the South Campus is designed for Licensed Vocational Nurses (LVN’s) and Paramedics who aspire to become a registered nurse. The program is three semesters.

- In addition to the associate degree nursing programs, the North and South Campuses offer vocational nursing programs. Successful completion of course work in this program qualifies students to make application to the Texas Board of Nursing to take the National Council Licensure Examination for Practical Nurse (NCLEX-PN) to become a Licensed Vocational Nurse (LVN).

### Generic Associate Degree Nursing Program Central and North Campuses

A generic student is a novice in health care who generally does not have any formal nursing education. Successful completion of the generic ADN program by these students will qualify graduates to make application for the National Counsel Licensure Examination for Registered Nurse (NCLEX-RN).

Students applying for admission to the Generic ADN program must submit the following items:

1. **Application for Admission to San Jacinto College via the website at http://sanjac/apply (provided online).**

2. **Completion of the Associate Degree Nursing Program Application (provided online) during the application period.**

3. **Application Periods:**
The ADN program accepts applicants twice a year. Associate Degree Nursing Program Applications can be obtained at wwwsanjac.edu/nursing during the following periods:
Fall Application Period: February 2-April 2  
Spring Application Period: June 1-Aug 3

Students are strongly encouraged to contact a Counselor or Education Planner in the Educational Planning and Counseling Center to assist the San Jacinto College and ADN Admissions process. Please call 281-998-6150 ext. 1014 or 2317 to schedule an appointment.

4. Selection criteria.
Students must apply for admissions to the Associate Degree Nursing program by submitting an Associate Degree Nursing Program Application and packet with ALL required official documents at the same time to the ADN office no later than the end of the application period.

Students who apply for admissions to the Associate Degree Nursing Program will be selected on the basis of the highest score on the Admissions and Scoring Rubric. The rubric consists of points given for the grade obtained on the prerequisite courses (see program specific prerequisites below), HESI A2 results, overall GPA and the completed application packet. Meeting minimum admissions requirements does not guarantee program admission.

5. Code of Conduct
All students admitted to the ADN program are expected to maintain the highest personal and professional standards of conduct in class and clinical, in accordance with College policies and procedures, the College Student Handbook, the ADN Department Student Handbook and clinical facility policies and procedures which are used as extended campus sites. Any information indicating that such standards are not adhered to is subject to review by the Department Chair, and /or members of the Nursing department faculty, and may result in a recommendation to the College for dismissal from the program.

6. Official Transcripts must be submitted with the application packet.
(a) College transcripts- Applicants must submit official transcripts from all colleges previously attended mailed directly to the Central Campus Office of Enrollment Services. Transcripts should be requested as soon as possible. Applicants are encouraged to begin accessing their transcripts early in the application process to ensure that all required documents are available for review. All coursework taken outside of the San Jacinto College District are required to be evaluated for transferability of credits towards the ADN degree.

(b) A minimum cumulative GPA of 2.5 is required for all applicants.

(c) Submit all official transcripts sealed from other colleges and San Jacinto College transcripts with ADN application.

7. HESI A2 Admissions Test
Applicants seeking admissions must take an official Nursing Admissions Assessment Exam (HESI A2). A composite score of 75% in EACH section of Reading Comprehension, Grammar, Vocabulary, Anatomy and Physiology, Biology, and Math is required. The Learning Styles section is required, but will not be used in determining admissions. Submit all HESI A2 admissions test scores with the ADN application packet. Official test scores should be requested as soon as possible. Please visit http://www.sanjac.edu/code/6651 (Testing Center-HESI website) for test dates on Central Campus.

8. A Criminal Background Check and Drug Screen
All applicants are required to complete a criminal background check and drug screen as part of the application/admissions process. According to the Texas BON effective January 1, 1996 a person who has been convicted of a felony that relates to the duties and responsibilities of a licensed registered nurse may be disqualified from obtaining licensure as a licensed registered nurse (213.28 Board of Nurse Examiners for the State of Texas, Rules and Regulations, Sept. 2004). For further inquiry the applicant should directly contact the Texas Board of Nursing. The procedure for completing the Criminal Background Check and Drug Screen requirements can be found on the ADN website.

9. CPR Card and Immunization documentation must be submitted with the ADN application packet.
In order for your ADN application to be accepted, you must have completed a minimum of:

- CPR card from the American Heart Association Healthcare Provider (online courses are not accepted)
- Varicella Immunization #1, #2 and a positive titer
- Hepatitis B series and a positive titer
- Or TWINRIX series completed and appositive titer
- Measles, Mumps, and Rubella (MMR) Immunizations #1, #2 and a positive titer
- Tdap (Tetanus, Diphtheria and Pertussis) within the last 10 years
- Current Flu vaccination
- TB Skin Test (within 12 months)
- Chest X-Ray (if applicable)

The Texas Administrative Code Rule 97.64 states that enrolled students may not participate in coursework activities including direct patient contact until full vaccination series have been completed.

Titers for MMR, Varicella, and Hepatitis B are required to be on file in the student’s record prior to the end of the first semester of the ADN program.

10. Health-Physical Examination is required.
Evidence of physical and emotional fitness upon admission and throughout the program is expected and is subject to review by the Associate Degree Nursing Department and medical opinions or policy of hospital/agencies which are used as extended campus sites for assigned educational experiences.

A physical examination must be passed prior to entry into the ADN Program after a student has been selected and accepted.
into the program. Physical exams may be scheduled with a private physician/nurse practitioner/physician assistant utilizing the forms issued by the Associate Degree Nursing Program upon acceptance. The physical examination must demonstrate that the student is physically and emotionally fit to meet all requirements of direct patient care without any limitations and be free from all communicable diseases.

**Associate Degree Nursing (RN) (3NUR-ADN), Generic Program**

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Verification of Workforce Competencies:

1. Capstone Experience - RNSG 2130 Comprehensive Exit Exam

**Associate Degree Nursing, Transition**

**TRANSITION PROGRAM OFFERED AT SOUTH CAMPUS effective FALL 2015.**

Contact Information: SJCSouth-ADN@sjcd.edu or call 281-998-6150 Ext. 3598

The associate degree nursing (ADN) transition program is a career transition opportunity designed for licensed vocational nurses (LVN) and paramedics who desire to continue their education while maintaining employment. It is a program specifically designed to meet the unique learning needs of the LVN and paramedic. The nursing program can be completed in three (3) terms. The ADN transition program is approved by the Board of Nurse Examiners for the State of Texas, 333 Guadalupe #3-460, Austin, Texas 78701 and accredited by the Accreditation Commission for Nursing (ACEN) 3343 Peachtree Road NE, Suite 850 Atlanta, Georgia 30326, 404-975-5000.

**Program Admission Criteria**

To be considered for acceptance into the ADN Transition program, students must meet the College’s general admission requirements, as well as the program admission criteria, and must be assessed for college readiness in the areas of reading, mathematics, and writing (See the Texas Success Initiative section of this catalog).

All prerequisite courses must be completed prior to applying to the ADN program.

A class is enrolled in January and August of each year. The application periods are July 1 through September 1 for Spring admission and February 1 through April 1 for Fall admission.

Attendance at the information sessions is a requirement of all prospective students, in order to make application to the nursing program. Information session dates are on the website as www.sanjac.edu.
sanjac.edu/nursing.

The following documentation must be submitted to the South Campus nursing program director:

• Current Texas license to practice—Licensed Vocational Nurses must have a current Texas license. Paramedics must be Texas certified and provide supporting documentation.

• All official transcripts (sealed) from previous colleges must have been submitted and evaluated by The Office of Enrollment Services prior to time of application. Applicant must have a minimum of a 2.5 GPA in all required prerequisite courses to be considered for admission.

• Current CPR card with Health Care Provider status. (LVN) or ACLS certified (paramedic).

In order for credit earned in a required biology course to be applicable to the ADN transition program, credit must have been earned within the past five years and the grade earned must be a C or above. Credit earned in a required biology course exceeds the five-year stipulation if the credit was earned five or more years prior to the first term in which the student enrolls in the program.

There are a limited number of student spaces, therefore, students are admitted on a competitive basis. Students who apply for admission to the department of nursing will be selected on the basis of grade point average. The student must maintain an overall grade point average of 2.5 or above and earn at least 24 credit hours at San Jacinto College in order to graduate from the LVN/paramedic—ADN mobility program with an Associate of Applied Science in Nursing. Students must also complete an Admission Assessment Exam (A2) and achieve percentage scores in each category as determined by the curriculum committee in the LVN/paramedic to ADN transition program. Prospective students can only sit for the HESI Exam (A2) after required prerequisites have been completed. In addition, the HESI can only be taken at the San Jacinto College South Campus. Students are allowed to take the exam two (2) times per enrollment semester. All prospective students are required to have a criminal background check completed prior to consideration for admission. Any student who has been convicted of misdemeanors (other than minor traffic violations) or felonies will not be admitted to the program. Random urine drug screens may be required during the program. Positive drug screens will be cause for dismissal from the program. Students may petition to the department for further guidance regarding criminal background checks or urine drug screening test.

Effective January 1, 1996, a person who has been convicted of a felony that relates to the duties and responsibilities of a licensed registered nurse may be disqualified from obtaining licensure as a licensed registered nurse (213.28 Board of Nurse Examiners for the State of Texas; Rules and Regulations, Sept. 2004). For further inquiry, the applicant addresses these issues directly to the Texas Board of Nursing.

**Reasons for automatic denial for admissions:**

a. Any two grades of a “D” or below in Biology courses within the past five (5) years.

b. GPA below 2.5

***Grades of “IP”, “NG”, “FX”, etc. will be considered as failures.

***Grades of a “W” will not count as a failure; however for every two (2) grades of “W” one point will be deducted from your admission consideration.

### LVN/Paramedic to RN Transition Nursing (3NUR-LNTRN) and (3NUR-PMTRN)

#### Associate of Applied Science Degree

**South Campus**

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<th>Pre-requisite</th>
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<tr>
<td>BIOL 2301 Human Anatomy and Physiology I (Lec) and BIOL 2101 Human Anatomy and Physiology I (Lab); and BIOL 2302 Human Anatomy and Physiology II (Lec) and BIOL 2102 Human Anatomy and Physiology II (Lab)</td>
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<tr>
<td>BIOL 2320 Microbiology for Health Science Majors (Lec) and BIOL 2120 Microbiology for Health Science Majors (Lab)*</td>
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<td>MATH 1314 College Algebra or Higher</td>
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**Subtotal**  **21**

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<td>PSYC 2314 Lifespan Growth &amp; Development</td>
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<td>RNSG 1227 Transition to Professional Nursing</td>
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<td>RNSG 1115 Health Assessment</td>
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<td>RNSG 1161 Clinical - Registered Nursing</td>
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<td>RNSG 1271 Concepts of Adult Health</td>
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<td>RNSG 2332 Enhanced Concepts of Adult Health</td>
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<tr>
<td>RNSG 2263 Clinical - Registered Nursing</td>
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**Subtotal**  **13**

**Associate of Applied Science Degree Total**  **60**

**Capstone Experience: RNSG 2130 (for comprehensive exit exam)**

**Upon successful completion of First Year - First Semester courses:**

- RNSG 1227 Transition to Professional Nursing
- RNSG 1115 Health Assessment
RNSG 1161 Clinical - Registered Nursing
RNSG 1271 Concepts of Adult Health,
the student will be awarded credit for prior learning by
professional liscensure or paramedic certification for the
following courses:
RNSG 1105 Nursing Skills I
RNSG 1160 Clinical - Registered Nursing
RNSG 1413 Foundations for Nursing Practice
*Courses which satisfy this requirement are listed in the Humanities and Fine Arts
sections of the Transfer Core Curriculum of the Educational Programs section of
the catalog.

Associate Degree Nursing,
Mobility
(last class of students from Spring 2015 to Spring 2016)

The ADN mobility program is a career mobility opportunity
designed for LVNs and paramedics who desire to continue
their education while maintaining employment. It is a program
specifically designed to meet the unique learning needs of
the LVN and paramedic. The nursing program is offered as a
program that can be completed in three (3) terms. The ADN
mobility program is approved by the Board of Nurse Examiners
for the State of Texas, 333 Guadalupe #3-460, Austin, Texas
78701 and accredited by the National League of Nursing
Accrediting Commission (NLNAC) (National League for
Nursing Accrediting Commission, 3343 Peachtree Road NE,
Suite 850 Atlanta, Georgia 30326, 404-975-5000.

Program Admission Criteria
To be considered for acceptance into the ADN Mobility program,
students must meet the College's general admission requirements,
as well as the program admission criteria, and must be assessed for
college readiness in the areas of reading, mathematics, and writing
(See the Texas Success Initiative section of this catalog).

All prerequisite courses must be completed prior to applying to the
ADN program. Applicants are encouraged to complete all other
prerequisite courses prior to seeking enrollment in RNSG 1301,
RNSG 1215, and RNSG 1108.

A class is enrolled in January and August of each year. The
application periods are Sept. 1 – Oct. 15 for Spring admission and
April 15 – June 1 for Fall admission.

Attendance at the information sessions is a requirement of
all prospective students, in order to make application to the
nursing program.

The following documentation must be submitted to the South
Campus nursing program director:

- Current Texas license to practice – Licensed Vocational Nurses
  must have a current Texas license. Paramedics must be Texas
certified.

- All official transcripts (sealed) from previous colleges
  must have been submitted and evaluated by The Office of
  Enrollment Services prior to time of application. Applicant
  must have a minimum of a 2.5 GPA in all required
  prerequisite courses to be considered for admission.

- Current CPR card with Health Care Provider status for LVNs
  or ACLS for certified paramedics.

In order for credit earned in a required biology course to be
applicable to the ADN mobility program, credit must have been
earned within the past five years and the grade earned must have
been a C or above. Credit earned in a required biology course
exceeds the five-year stipulation if the credit was earned five or
more years prior to the first term in which the student enrolls in
the program. In order for credit earned in a required pre-nursing
course (RNSG) to be applicable to the ADN mobility program,
credit must have been earned within the past two years and the
grade earned must have been a C or above. Credit earned in a
required pre-nursing course exceeds the two-year stipulation if the
credit was earned two or more years prior to the first term in which
the student enrolls in the program.

There are a limited number of student spaces; therefore, students
are admitted on a competitive basis. Students who apply for
admission to the department of nursing will be selected on the
basis of grade point average. The student must maintain an
overall grade point average of 2.5 or above and earn at least
24 credit hours at San Jacinto College District in order to
graduate from the LVN/Paramedic–ADN mobility program
with an Associate of Applied Science in Nursing. Students
must also complete an Admission Assessment Exam (A2) and
achieve percentage scores in each category as determined by
the curriculum committee in the LVN/paramedic to ADN
mobility program. Prospective students can only sit for the HESI
Exam(A2) after required prerequisites have been completed. In
addition, the HESI can only be taken at San Jacinto College-
South Campus. Students are allowed to take the exam two (2)
times per enrollment semester. All prospective students are
required to have a criminal background check completed prior to
consideration for admission. Any student who has been convicted
of misdemeanors (other than minor traffic violations), felonies
will not be admitted to the program. Random urine drug screens
may be required during the program. Positive drug screens will
be cause for dismissal from the program. Students may petition
to the department for further guidance regarding criminal background checks or urine drug screening test.

Effective Jan. 1, 1996, a person who has been convicted of a felony that relates to the duties and responsibilities of a licensed registered nurse may be disqualified from obtaining licensure as a licensed registered nurse. (213.28 Board of Nurse Examiners for the State of Texas; Rules and Regulations, Sept. 2004.) For further inquiry, the applicant addresses these issues directly to the Texas Board of Nursing.

**Reasons for automatic denial for admissions:**

a. Any two grades of a “D” or below in RNSG courses within the past two (2) years.

b. Any two grades of a “D” or below in Biology courses within the past five (5) years.

***Grades of "IP", "NG", "FX", etc. will be considered as failures.

***Grades of a "W" will not count as a failure; however for every two (2) grades of "W" one point will be deducted from your admission consideration.

**LVN/Paramedic to ADN Mobility (3NUR-LMOB) (3NUR-PMOB)**

(last class of students from Spring 2015 to Spring 2016)

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| Associate of Applied Science Degree Total | 66     |

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<td>HECO 1322</td>
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*Courses which satisfy this requirement are listed in the Humanities and Visual/Performing Arts section of the Transfer Core.

## Vocational Nursing (VN)

The vocational nursing curriculum includes a combination of class lectures, nursing skills training, and clinical experience in a variety of health care settings. The program is approved by the Texas Education Agency and the Texas Board of Nursing. Upon successful completion of the program, graduates may apply to take the State Board Examination. Those students who pass this examination are granted a license by the Texas Board of Nursing to practice as a licensed vocational nurse.

Applicants for the program must meet the requirements for general admission to the College and must also meet the following specific requirements:

- Be a high school graduate, GED, or equivalent.
- Pass the placement test with a skill level of 7 in Reading and Writing, and Mathematics level 9.
- Have a GPA minimum of 2.25 on college-level coursework.
- Pass a physical examination and meet specific immunization requirements.
- Pass a criminal history check and drug screening.

Effective Jan. 1, 1996, a person who has been convicted of a felony that relates to the duties and responsibilities of a licensed vocational nurse may be disqualified from obtaining licensure as a licensed vocational nurse. (213.28 Board of Nurse Examiners for the State of Texas; Rules and Regulations, September 2004.) These issues are addressed directly to the Texas Board of Nursing by the applicant. Students who apply for admission and who
meet the stated requirements will be selected for admission on the basis of placement test scores, entrance exams, and grades on college-level course work completed at San Jacinto College or other accredited institutions of higher education. Applicants who are accepted for admission will be notified via email. Applicants who are not selected for admission to the vocational nursing program for a given term must re-apply for admission if they wish to be considered for admission during a subsequent term; applicants who are accepted for admission, but who do not enroll, must also re-apply.

For detailed information concerning admission requirements, deadlines for submitting applications and related documents, and requirements for completing the program, contact the department of vocational nursing. The program is a full year of training, including 560 classroom and 896 laboratory/clinical hours. Students completing each of the courses specified in the program with grades of C or above are awarded a Level 2 Certificate.

**Vocational Nursing (SNUR-LVN)**

**Level 2 Certificate**

**North and South Campuses**

The prerequisite for enrolling in the first term is acceptance into the program.

### First Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>VNSG 1116 Nutrition or</td>
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<tr>
<td>HECO 1322 Principles of Nutrition</td>
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</tr>
<tr>
<td>VNSG 1320 Anatomy and Physiology for Allied Health or</td>
<td></td>
</tr>
<tr>
<td>BIOL 2301 Human Anatomy and Physiology I (Lec) and</td>
<td></td>
</tr>
<tr>
<td>BIOL 2302 Human Anatomy and Physiology II (Lec) and</td>
<td></td>
</tr>
<tr>
<td>BIOL 2301 Human Anatomy and Physiology I (Lab) and</td>
<td></td>
</tr>
<tr>
<td>BIOL 2302 Human Anatomy and Physiology II (Lab) and</td>
<td></td>
</tr>
<tr>
<td>VNSG 1327 Essentials of Medication Administration</td>
<td>3</td>
</tr>
<tr>
<td>VNSG 1423 Basic Nursing Skills</td>
<td>4</td>
</tr>
<tr>
<td>VNSG 2431 Advanced Nursing Skills</td>
<td>4</td>
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<tr>
<td>VNSG 1260 Clinical I</td>
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**Subtotal**: 17

### Second Term

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<tr>
<td>VNSG 1429 Medical-Surgical Nursing I</td>
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<tr>
<td>VNSG 1331 Pharmacology</td>
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</tr>
<tr>
<td>VNSG 1261 Clinical II</td>
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<tr>
<td>VNSG 1301 Mental Health and Mental Illness</td>
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<tr>
<td>VNSG 1205 NCLEX-PN Review</td>
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<td>VNSG 1226Gerontology</td>
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<td>VNSG 1162 Clinical III</td>
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**Subtotal**: 17

### Third Term

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<td>VNSG 1432 Medical-Surgical Nursing II</td>
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<td>VNSG 1230 Maternal-Neonatal Nursing</td>
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<tr>
<td>VNSG 1234 Pediatrics</td>
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<tr>
<td>VNSG 2160 Clinical IV</td>
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**VNSG 2161 Clinical V** ................................. 1
**VNSG 1119 Leadership and Professional Development** ................................. 1

**Subtotal**: 11

### Level 2 Certificate Total

**45**

### Capstone Experience: 2160

* The prerequisite for enrolling in the second and third terms is successful completion of each preceding term with a minimum grade of C in each course.

** VNSG 1226 and VNSG 1162 will rotate second and third term.

**Paralegal**

**Paralegal (3PARA-LGL)**

**Associate of Applied Science Degree**

**North Campus**

The paralegal curriculum at San Jacinto College District is designed to provide students with the knowledge and skills required to work under the general direction of attorneys to assist them in the completion of legal tasks. The ABA approved program provides knowledge and skills for employment in law firms, courts, utility companies, title companies, trusts and mortgage departments of banks, government agencies, industrial companies and other legal departments. A paralegal may not provide legal services directly to the public unless specifically authorized by law.

### First Term

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>LGLA 1307 Introduction to Law and Legal Professions</td>
<td>3</td>
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<tr>
<td>LGLA 1345 Civil Litigation</td>
<td>3</td>
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<tr>
<td>ENGL 1301 Composition I</td>
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<td>BCIS 1305 Business Computer Applications</td>
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<td>LGLA 1317 Law Office Technology</td>
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</tr>
<tr>
<td>ENGL 1302 Composition II</td>
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<tr>
<td>MATH 1314 College Algebra or <strong>Natural Science</strong></td>
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**MATH 1333 Contemporary Math for Technical Programs**

**Paralegal (3PARA-LGL)**

**Associate of Applied Science Degree**

**North Campus**

The paralegal curriculum at San Jacinto College District is designed to provide students with the knowledge and skills required to work under the general direction of attorneys to assist them in the completion of legal tasks. The ABA approved program provides knowledge and skills for employment in law firms, courts, utility companies, title companies, trusts and mortgage departments of banks, government agencies, industrial companies and other legal departments. A paralegal may not provide legal services directly to the public unless specifically authorized by law.

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<tr>
<td>PSYC 1300 Learning Framework .................................</td>
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<tr>
<td>LGLA 1307 Introduction to Law and Legal Professions</td>
<td>3</td>
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<tr>
<td>LGLA 1345 Civil Litigation</td>
<td>3</td>
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<td>3</td>
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<tr>
<td>BCIS 1305 Business Computer Applications</td>
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**Subtotal**: 15

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<th>Course</th>
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<tr>
<td>LGLA 1303 Legal Research</td>
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<tr>
<td>LGLA 1305 Legal Writing</td>
<td>3</td>
</tr>
<tr>
<td>LGLA 1317 Law Office Technology</td>
<td>3</td>
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<tr>
<td>ENGL 1302 Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1314 College Algebra or <strong>Natural Science</strong></td>
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</table>

**MATH 1333 Contemporary Math for Technical Programs**

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**www.sanjac.edu**

179
**Pharmacy Technician**

Pharmacy technicians are a vital member of the health care team. Working under the supervision of the pharmacist, the pharmacy technician performs those tasks associated with the preparation and distribution of medication. Exciting career opportunities include, but are not limited to, positions in hospitals, retail pharmacies, nursing homes, compounding pharmacies, home health care, nuclear pharmacies, insurance companies, and public and government health agencies. The San Jacinto College pharmacy technician program is a 12-month certificate program designed to provide applicants with the skills and knowledge to pass the Pharmacy Technician Certification Examination (PTCE) as well as qualify for entry-level positions in a variety of pharmacy settings.

**Program Overview**

The pharmacy technician program at San Jacinto College is a nationally-accredited program under the guidelines of the American Society of Health-System Pharmacists (ASHP). The program curriculum requires students to complete 35 credit hours that total 944 contact hours which consists of a combination of lecture, on-campus laboratory and clinical training. The emphasis of the program is on training students to work in retail and hospital pharmacies. Upon completion of the program, students are awarded a certificate of technology. After graduation, students apply to take the Pharmacy Technician Certification Examination (PTCE). A pharmacy technician must pass the certification examination and register with the Texas State Board of Pharmacy (TSBP) to practice as a certified pharmacy technician (CPhT) in the state of Texas. The program includes two clinical courses. Clinicals are unpaid positions in which students are supervised by the employees at the clinical site. The first clinical is a 160-contact hour, three-credit hour, external learning experience course that takes place in a retail pharmacy. The second clinical is a 160-contact hour, three-credit hour external learning experience course that takes place in a hospital pharmacy. Clinicals are scheduled according to the hours of the site and may vary among day, evening and night shifts. We cannot guarantee any specific site, but every effort will be made to accommodate the student. Students are responsible for their own transportation to and from clinical sites.

**Program Admission Procedures**

The purpose of this admissions process is to provide information and access to the resources that will lead to student success in the program. Depending upon the campus, the pharmacy technician program accepts students twice a year; the Fall semester for day students and high school dual credit students (Dual Credit program at North Campus only) and the Spring semester for evening students. Application periods are May 1 to July 31 for the Fall semester, and November 1 to January 15 for the Spring semester. Once the deadline for applications has passed, all completed files will be reviewed and processed.

Students on Academic Probation or Suspension do not qualify for admission.

- Computer proficiency is recommended for the certificate program. Students who do not have computer proficiency are encouraged to take BCIS 1305 or ITSC 1309.

The orientation provides an opportunity to:

- Review applicant assessment
- Discuss the program and career opportunities
- Determine educational plan
- Receive instructions for registration
- Applicants demonstrating a need for additional coursework to equip them for success in the Pharmacy Technician program must successfully complete suggested course(s) prior to admission to the program.
- Academic background will be reviewed.

**Selection Criteria**

Acceptance to the pharmacy technician program is based on open enrollment, first-come, first-serve basis. Applicants desiring admission must meet with the program director for program advisement and review of admission requirements. If the applicant meets all basic requirements, the applicant is accepted for admission. When the program capacity is reached, qualified applicants are placed on a waiting list in the order their application was received, and they are offered admission during the next

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<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>LGLA 1353 Wills, Trusts andProbate Administration</td>
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<tr>
<td>LGLA Approved Elective</td>
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<td></td>
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<tr>
<td>LGLA 2388 Internship - Paralegal/Legal Assistant</td>
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**External Learning Experience: LGLA 2388**

- Approved Electives:
  - LGLA 1351
  - LGLA 2303
  - LGLA 1343
  - LGLA 2309
  - LGLA 1349
  - LGLA 2311
  - LGLA 1359
  - LGLA 2323
  - LGLA 1391
  - LGLA 2335

* Courses which satisfy this requirement are listed in the Humanities and Fine Arts section of the Transfer Core Curriculum.

**Students must be TSI complete in order to graduate: Math level 9.**
admission cycle.

Program Admission Requirements
Applicants for the program must meet the College’s general admission requirements, as well as the program admission criteria.

SAN JACINTO COLLEGE GENERAL ADMISSION REQUIREMENTS – the following must be completed and submitted to the Office of Enrollment Services prior to applying to the program.

• Complete the application for admission to San Jacinto College through The Office of Enrollment Services.
• Submit official transcripts high school (diploma, GED or equivalent) and all previous college transcripts from accredited colleges/universities.

PHARMACY TECHNICIAN PROGRAM ADMISSION REQUIREMENTS – the following must be completed and submitted to the office of the pharmacy technician program by the application deadline.

• Program Application
• Criminal Background Check. Individuals with a history of misdemeanors and felony convictions do not qualify for admission into the program.
• Urine drug screen. Must be negative in order to qualify for admission into the program.
• Obtain Pharmacy Technician Trainee License by registering as a Pharmacy Technician Trainee with the Texas State Board of Pharmacy. This process requires fingerprinting.

Copy of Immunization Records to include:

• Tetanus-diphtheria (Td): proof or one dose less than 10 years old.
• TB Skin Test (TB): If you have had a previous positive TB skin test or the BCG (TB) vaccination then you must have a Chest X-Ray performed. TB Skin Tests & Chest X-Ray are good for one year.
• Measles, Mumps, and Rubella (MMR): proof of two doses. If previously vaccinated and shot records are lost or unavailable, immunity can be validated with a titer level (blood) confirmation.
• Varicella (chickenpox): proof of two doses or written validated disease history by parent or physician. If previously vaccinated and shot records are lost or unavailable, immunity can be validated with a titer level (blood) confirmation.
• Hepatitis B: proof of three doses. If previously vaccinated and shot records lost or unavailable, immunity can be validated with a titer level (blood) confirmation.
• Influenza (Flu) Vaccine: flu vaccines are good for one year.

Certificate of Technology
North and South Campuses
First Term
<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>HPRS 1206 Essential Medical Terminology</td>
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<tr>
<td>PHRA 1301 Introduction to Pharmacy</td>
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<tr>
<td>PHRA 1305 Drug Classification</td>
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<tr>
<td>PHRA 1309 Pharmaceutical Mathematics I</td>
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</tr>
<tr>
<td>PHRA 1313 Community Pharmacy Practice I</td>
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Second Term
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<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PHRA 1441 Pharmacy Drug Therapy and Treatment</td>
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</tr>
<tr>
<td>PHRA 1347 Pharmaceutical Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>PHRA 1345 Compounding Sterile Preparations and Aseptic Technique</td>
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<tr>
<td>PHRA 1349 Institutional Pharmacy Practice</td>
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Third Term
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<tr>
<td>PHRA 1243 Pharmacy Technician Certification Review</td>
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<td>PHRA 1360 Clinical: Community Pharmacy</td>
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</table>

Certificate of Technology Total  35

Capstone Experience: PHRA 2360

NOTE: Students must pass each course listed in the certificate for Pharmacy Technician with a grade of C or higher to be eligible to receive a certificate of technology.

Physical Education Personal Training

The purpose of the personal trainer program is to prepare graduates to work in the field of personal training. Individuals with these credentials are a vital component in the fitness industry. Graduates of the personal trainer program will have a strong background in the appropriate personal training anatomy and physiology, kinesiology, biomechanics, health and safety, and wellness/lifestyle changes areas. They will have industry knowledge in business practices, professional ethics, marketing, and proper record keeping.

Personal Trainer (4PHED-PT)

Certificate of Technology
South Campus
First Term
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<th>Course</th>
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<tr>
<td>PHED 1306 First Aid</td>
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<td>FITT 1237 Personal Training</td>
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<td>FITT 2413 Exercise Science</td>
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<tr>
<td>HPRS 1202 Wellness and Health Promotion</td>
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Second Term
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<tr>
<th>Course</th>
<th>Credit</th>
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</table>

www.sanjac.edu  181
TECHNICAL PROGRAMS

FIT 2301 Lifestyle Change for Wellness ........................................ 3
FIT 2309 Theory of Exercise Program Design and Instruction ........................................ 3
FIT 1303 Fitness Event Planning .................................................... 3
FIT 2471 Kinesiology and Biomechanics ....................................... 4
Subtotal 13

Certificate of Technology Total 24

Eligible for any nationally recognized Personal Trainer credentialing exam.

Physical Therapist Assistant

Physical Therapist Assistants (PTAs) work under the direction and supervision of physical therapists in a variety of settings. Opportunities include, but are not limited to, out-patient clinics, hospitals, long-term care facilities, pediatric centers, schools, and home health agencies. PTAs provide services for patients, which help decrease pain, improve mobility, restore function, and minimize disabilities.

The physical therapist assistant program at San Jacinto College is accredited by the Commission on Accreditation in Physical Therapy Education (111 North Fairfax St., Alexandria VA 22314-1488; telephone: (703) 706-3245; email: accreditation@apta.org; website: http://www.capteonline.org.

The program is a total of 64 semester credit hours, including 3 clinical affiliations, and the student is awarded an associate of applied science (A.A.S.) degree upon completion of the program. After graduation, the student applies to take The National Physical Therapist Assistant Examination. Individuals must pass the licensure exam to practice as a PTA in most states, including Texas. The licensure exam is offered by the Executive Council of Physical Therapy and Occupational Therapy Examiners.

PTA students must earn an average of 70 or above in the PTHA classes and a “C” or better in all courses in the PTA curriculum. Additionally, the student must maintain an overall grade point average of at least 2.0 in order to graduate from the PTA program.

Acceptance into the PTA program is based on a points system. It is competitive with enrollment limited to 24 students. Applicants must meet the College’s general admission requirements. Complete applications must be received between January 15th and March 1st for enrollment in the Fall semester. See the PTA Program Admission Requirements form for more information online at www.sanjac.edu/PTA

For more information on the licensing process or for complaints regarding the PTA program or a PTA student contact the Executive Council of Physical Therapy and Occupational Therapy Examiners at 333 Guadalupe, Suite 5-101 Austin TX 78701-3942; Phone (512) 305-6900; www.ecptote.state.tx.us/

The American Physical Therapy Association provides information on the profession of physical therapy. www.apta.org

Steps to complete admission:
1. Apply for admission into San Jacinto College at www.sanjac.edu/apply.
2. Submit all official transcripts from colleges/universities other than San Jacinto to the Office of Enrollment Services at San Jacinto South. Request a transcript evaluation be completed to determine prior course equivalency. (This must be completed prior to the admission application deadline. This can take up to 10 business days. Upon completion of the transcript evaluation you must provide a copy of your San Jacinto College transcript to the PTA program with your PTA program application and other required materials.
3. Submit all transcripts (unofficial copies are acceptable) in your PTA application packet.
4. Complete PTA program application form and submit after January 15. The deadline for all application documents is March 1. All program application forms are available at www.sanjac.edu/PTA
5. Submit Hours of Observation Form. A total of 40 hours is required from at least two of the following settings: outpatient, in-patient rehabilitation, acute care hospital, pediatrics or home health. Twenty hours in-patient or acute hospital setting is strongly required as one of the options.
6. Submit three recommendation forms (only three). It is required that one of the letters be from a licensed PT or PTA. Each form must be completed and placed in a separate envelope. The person completing the form must sign the seal of the envelope. All three sealed and signed envelopes must be included in the PTA program application packet.
7. All required forms must be submitted in one envelope via mail or hand delivered by March 1.
8. If eligible, complete the interview process.
9. If eligible, complete criminal background and drug screen.

The top 50 or so students will be invited for an interview, which will include a meeting with the faculty and a written essay. Students with the greatest number of points will be offered acceptance.

Physical Therapist Assistant (3PH-THRPY)

Associate of Applied Science Degree

South Campus

First Term Credit
PTHA 1201 The Profession of Physical Therapy ...................... 2
PTHA 1305 Basic Patient Care Skills .......................................... 3
PTHA 1313 Functional Anatomy ................................................ 3
ENGL 1301 **Composition I ..................................................... 3
**BIOL 2301 Human Anatomy and Physiology I (Lec) and
**BIOL 2101 Human Anatomy and Physiology I (Lab) .......... 4
Subtotal 15

Second Term Credit
PTHA 2201 Essentials of Data Collection ............................... 2
PTHA 2409 Therapeutic Exercise .............................................. 4
PTHA 1431 Physical Agents ..................................................... 4
**BIOL 2302 Human Anatomy and Physiology II (Lec) and
**BIOL 2102 Human Anatomy and Physiology II (Lab) ..... 4
Subtotal 14

PostY1Summer

Credit
The process technology department is a direct link to the largest industry in the greater Houston area and the Texas Gulf Coast region. In the past very little formal training was required prior to taking a job in the chemical process industry. However, companies in the Houston area now require more education for their entry-level technicians and are looking to community college graduates to meet those needs.

Students train in state-of-the-art process laboratory facilities similar to area refining and chemical plant environments. The College facility was built in cooperation with area petrochemical companies. San Jacinto Community College District works closely with industry as a member of the Gulf Coast Process Technology Alliance to maintain a curricula reflecting current technology standards.

Completion of the process technology curriculum can provide students with the technical skills required for entry-level positions as process technicians in petrochemical and related industries.

A certificate in process technology is still accepted by most industry, however, several industries have indicated they will hire only graduates with the associate of applied science degree. Future trends indicate that most of the petrochemical industry technicians will be required to have an A.A.S. degree. Students who earn qualifications to be in the chemical lab technician specialty A.A.S. degree program have the advantage of earning qualifications for being hired into either the operations division or laboratory department of a process plant.

### Process Technology (5PROT)

#### Central Campus

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<td>ENER 1330</td>
<td>Basic Mechanical Skills for Energy</td>
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</tr>
<tr>
<td>PTAC 1302</td>
<td>Introduction to Process Technology</td>
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<td>TECM 1301</td>
<td>Industrial Mathematics</td>
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<td>PTAC 1310</td>
<td>Process Technology I - Equipment</td>
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<td>Process Instrumentation I</td>
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<td>ETWR 1302</td>
<td>Introduction to Technical Writing</td>
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<td>OSHT 1320</td>
<td>Energy Industrial Safety</td>
<td>3</td>
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<td>PTAC 2314</td>
<td>Principles of Quality</td>
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<td>Process Technology II - Systems</td>
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<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CETT 1302</td>
<td>Electricity Principles</td>
<td>3</td>
</tr>
<tr>
<td>PTAC 2438</td>
<td>Process Technology II - Operations or CTEC 2487</td>
<td>4</td>
</tr>
<tr>
<td>PTAC 2446</td>
<td>Process Troubleshooting</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1305</td>
<td>Introductory Chemistry (Lecture)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1105</td>
<td>Introductory Chemistry (Lab)</td>
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### North Campus

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PTHA 1321</td>
<td>Pathophysiology for the PTA</td>
<td>3</td>
</tr>
<tr>
<td>PTHA 2250</td>
<td>Current Concepts in Physical Therapy</td>
<td>2</td>
</tr>
<tr>
<td>PTHA 1360</td>
<td>Clinical I - PTA</td>
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</tr>
<tr>
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<table>
<thead>
<tr>
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<th>Course Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>PTHA 2239</td>
<td>Professional Issues</td>
<td>2</td>
</tr>
<tr>
<td>PTHA 2431</td>
<td>Management of Neurological Disorders</td>
<td>4</td>
</tr>
<tr>
<td>PTHA 2435</td>
<td>Rehabilitation Techniques</td>
<td>4</td>
</tr>
<tr>
<td>**MATH 1314 College Algebra or Higher</td>
<td>3</td>
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<table>
<thead>
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<tbody>
<tr>
<td>PTHA 2460</td>
<td>Clinical II - PTA</td>
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</tr>
<tr>
<td>PTHA 2461</td>
<td>Clinical III - PTA</td>
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<tr>
<td>*Humanities or Fine Arts</td>
<td>3</td>
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<tr>
<td>PSYC 2301</td>
<td>**General Psychology</td>
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<tr>
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</table>

**Marketable Skills Achievement Award Total**

### Level 2 Certificate

**Capstone Experience: PTHA 2461**

*Courses which satisfy the Humanities and Fine Arts requirement are listed in the Humanities and Fine Arts section of the Transfer Core Curriculum, which is published in the San Jacinto Community College Catalog.

**Applicants are encouraged to take the required courses identified with (*,**) prior to entering the PTA program.

### Pipefitting Technology

#### Pipefitting/Fabricator Technician (MPIPEFIT)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECM 1301</td>
<td>Industrial Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>PTAC 1332</td>
<td>Process Instrumentation I</td>
<td>3</td>
</tr>
<tr>
<td>CETT 1302</td>
<td>Electricity Principles</td>
<td>3</td>
</tr>
<tr>
<td>PTAC 2438</td>
<td>Process Technology II - Operations or CTEC 2487</td>
<td>4</td>
</tr>
<tr>
<td>PTAC 2446</td>
<td>Process Troubleshooting</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1305</td>
<td>Introductory Chemistry (Lecture)</td>
<td>4</td>
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<tr>
<td>Subtotal</td>
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</tr>
</tbody>
</table>

**Level 2 Certificate Total**

**Capstone Experience: PTAC 2438**

---

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**TECHNICAL PROGRAMS**

*Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra

**Process Technology (3PROT)**

<table>
<thead>
<tr>
<th>Central Campus</th>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENER 1240 Employee Success in Energy Industry</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>ENER 1330 Basic Mechanical Skills for Energy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PTAC 1302 Introduction to Process Technology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TECM 1301 Industrial Mathematics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Speech</td>
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<tr>
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<table>
<thead>
<tr>
<th>Central Campus</th>
<th>Second Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETWR 1302 Introduction to Technical Writing</td>
<td>3</td>
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</tr>
<tr>
<td>OSHT 1320 Energy Industrial Safety</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PTAC 1310 Process Technology I - Equipment</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PTAC 1332 Process Instrumentation I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SCI 1318 Applied Physics</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</table>

<table>
<thead>
<tr>
<th>PostY1Summer</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTAC 2314 Principles of Quality</td>
<td>3</td>
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<tr>
<td>*Social and Behavioral Sciences</td>
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<td><strong>Subtotal</strong></td>
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<table>
<thead>
<tr>
<th>Central Campus</th>
<th>Third Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CETT 1302 Electricity Principles</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PTAC 2420 Process Technology II - Systems</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>*Humanities or Fine Arts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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<table>
<thead>
<tr>
<th>Central Campus</th>
<th>Fourth Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTAC 2438 Process Technology III - Operations</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CTEC 2487 Internship - Chemical Technology/Technician or PTAC 2446 Process Troubleshooting</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CHEM 1305 Introductory Chemistry (Lecture) and CHEM 1105 Introductory Chemistry (Lab)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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</table>

**Verification of workplace competencies.**

**Capstone Experience: PTAC 2438**

<table>
<thead>
<tr>
<th>Central Campus</th>
<th>Process Technology Chemical Technician (EPROT-CT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced Skills Certificate</td>
<td></td>
</tr>
<tr>
<td>Central Campus</td>
<td>The enhanced skills certificate in Process Technology Chemical Technician is designed for students who have completed the Process Technology Associate of Applied Science Degree.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Central Campus</th>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1311 Chemistry I (Lecture) and CHEM 1111 Chemistry I (Lab)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CHEM 2323 Organic Chemistry I (Lecture) and</td>
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<td><strong>Enhanced Skills Certificate Total</strong></td>
<td><strong>12</strong></td>
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</tr>
</tbody>
</table>

**Process Technology Power Technician (EPROT-PT)**

<table>
<thead>
<tr>
<th>Central Campus</th>
<th>Enhanced Skills Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Process Technology Power Technician (EPROT-PT)</strong></td>
<td><strong>Central Campus</strong> The enhanced skills certificate in Process Technology Power Technician is designed for students who have completed the Process Technology Associate of Applied Science Degree.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Central Campus</th>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELMT 2351 Power Generation Fundamentals</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CBFM 1307 Boiler Operation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Enhanced Skills Certificate Total</strong></td>
<td><strong>6</strong></td>
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</tr>
</tbody>
</table>

**Restaurant Management**

See Culinary Arts

**Real Estate**

**Real Estate (6REAL)**

<table>
<thead>
<tr>
<th>All Campuses</th>
<th>Occupational Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Real Estate</strong></td>
<td><strong>All Campuses</strong> This certificate is designed to enable students to gain the knowledge and credentials necessary to take the salesperson’s licensure examination. All the courses required for this certificate also apply toward the certificate of technology and the associate of applied science degree.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Central Campus</th>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELE 1201 Principles of Real Estate I</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>RELE 1211 Law of Contracts</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>RELE 1238 Principles of Real Estate II</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>RELE 1300 Contract Forms and Addenda</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>RELE 1319 Real Estate Finance</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>RELE 2301 Law of Agency</td>
<td>3</td>
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<tr>
<td><strong>Occupational Certificate Total</strong></td>
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<table>
<thead>
<tr>
<th>Central Campus</th>
<th>Capstone Experience: RELE 1300</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capstone Experience: RELE 1300</strong></td>
<td><strong>Sales Requirements</strong> (after Sept. 1, 1994; amended Jan. 1, 2002; amended January 1, 2006, amended September 1, 2012): 14 semester hours. Amended January 1, 2008, amended January 1, 2012) A minimum of 12 semester hours (180 classroom hours) must be completed in specific core real estate courses. These core courses must be Principles of Real Estate I and II, Law of Agency, Real Estate Finance, Contract Forms and Addenda, and Law of Contracts. Educational Requirements for Texas Real Estate Licensure: Requirements for licensure are subject to change by the Texas Real Estate Commission. Three semester credit hours are equivalent of 45 clock or classroom hours. A real estate salesperson is required to complete a total of 18 semester (270 classroom) hours of education, by the end of their first year of licensure. Courses acceptable toward sales educational requirements are also acceptable for broker educational requirements. To be licensed as a broker under the educational requirements after Jan. 1, 2012, 18 semester hours (270 classroom hours) of the 60 semester hours (900 classroom hours) must</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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be in core real estate courses. An applicant must have taken a real estate brokerage class.

Also, at least four years active experiences in Texas as a licensed real estate salesperson are required.

For further information write or call The Texas Real Estate Commission, P.O. Box 12188, Capitol Station, Austin, TX 78711; 512.465.3940.

Core Real Estate Courses:
- RELE 1201
- RELE 1211
- RELE 1238
- RELE 1300
- RELE 1303
- RELE 1307
- RELE 1309
- RELE 1319
- RELE 1321
- RELE 1325
- RELE 1327
- RELE 1323
- RELE 2301
- RELE 2331

Related Courses Acceptable Toward Broker Licensure can be found on the TREC website: http://www.trec.texas.gov

### Real Estate (4REAL)

#### Certificate of Technology

##### All Campuses

The certificate of technology in Real Estate builds on the occupational certificate by including courses that provide for the annual renewal of the salesperson’s license and better equip the student to be successful in the highly competitive field of real estate. All courses required for this certificate also apply toward the associate of applied science degree.

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELE 1201 Principles of Real Estate I</td>
<td>2</td>
</tr>
<tr>
<td>RELE 1211 Law of Contracts</td>
<td>2</td>
</tr>
<tr>
<td>RELE 1238 Principles of Real Estate II</td>
<td>2</td>
</tr>
<tr>
<td>RELE 1300 Contract Forms and Addenda</td>
<td>3</td>
</tr>
<tr>
<td>RELE 1319 Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>RELE 2301 Law of Agency</td>
<td>3</td>
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**Subtotal** | **15**

<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BCIS 1305 Business Computer Applications or ITSC 1309 Integrated Software Applications I</td>
<td>3</td>
</tr>
<tr>
<td>RELE 1321 Real Estate Marketing or MRKG 2333 Principles of Selling</td>
<td>3</td>
</tr>
<tr>
<td>Approved Real Estate Elective</td>
<td>3</td>
</tr>
<tr>
<td>Approved Real Estate Elective</td>
<td>3</td>
</tr>
<tr>
<td>RELE 2366 Practicum - Real Estate or RELE 2367 Practicum - Real Estate</td>
<td>3</td>
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**Subtotal** | **15**

<table>
<thead>
<tr>
<th>Capstone Experience: RELE 2366 or RELE 2367</th>
</tr>
</thead>
</table>

Approved Real Estate Electives:
- RELE 1303
- RELE 1307
- RELE 1325
- RELE 1327
- RELE 2331

No course may be repeated for credit.

### Real Estate Advanced (5REAL)

#### Level 2 Certificate

##### All Campuses

The Level 2 certificate allows the student to complete all the program specific courses in real estate. This would be beneficial for a student that is interested in pursuing a broker’s license or possible management opportunities in real estate. This will also help satisfy some continuing education requirements as well as completing a broader study in real estate. Achieving this certificate and completing the 15 credit hours of prescribed general education courses will allow the student to achieve the Real Estate Associates of Applied Science degree (AAS).

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELE 1201 Principles of Real Estate I</td>
<td>2</td>
</tr>
<tr>
<td>RELE 1211 Law of Contracts</td>
<td>2</td>
</tr>
<tr>
<td>RELE 1238 Principles of Real Estate II</td>
<td>2</td>
</tr>
<tr>
<td>RELE 1300 Contract Forms and Addenda</td>
<td>3</td>
</tr>
<tr>
<td>RELE 1319 Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>RELE 2301 Law of Agency</td>
<td>3</td>
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</table>

**Subtotal** | **15**

<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCIS 1305 Business Computer Applications or ITSC 1309 Integrated Software Applications I</td>
<td>3</td>
</tr>
<tr>
<td>RELE 1303 Real Estate Appraisal</td>
<td>3</td>
</tr>
<tr>
<td>RELE 1321 Real Estate Marketing or MRKG 2333 Principles of Selling</td>
<td>3</td>
</tr>
<tr>
<td>RELE 1325 Real Estate Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>RELE 2366 Practicum (or Field Experience) - Real Estate</td>
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**Subtotal** | **15**

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<thead>
<tr>
<th>Third Term</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BUSI 1304 Business Report Writing and Correspondence or BUSI 2304 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>RELE 1307 Real Estate Investments or BUSI 2301 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>RELE 1323 Real Estate Computer Application</td>
<td>3</td>
</tr>
<tr>
<td>RELE 2331 Real Estate Brokerage</td>
<td>3</td>
</tr>
<tr>
<td>RELE 2367 Practicum (or Field Experience) - Real Estate</td>
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**Subtotal** | **15**

| Level 2 Certificate Total | 45 |

<table>
<thead>
<tr>
<th>Capstone Experience: RELE 2367</th>
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</thead>
</table>

### Real Estate (3REAL)

#### Associate of Applied Science Degree

##### All Campuses

This two-year program leading to an associate of applied science degree in Real Estate is for students who want to earn a two-year degree while preparing for jobs in real estate and for sales or broker licensure. Students pursuing a bachelor’s degree should see a counselor or the department chair prior to registration.

<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELE 1201 Principles of Real Estate I</td>
<td>2</td>
</tr>
<tr>
<td>RELE 1211 Law of Contracts</td>
<td>2</td>
</tr>
<tr>
<td>RELE 1238 Principles of Real Estate II</td>
<td>2</td>
</tr>
<tr>
<td>RELE 1300 Contract Forms and Addenda</td>
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</tr>
<tr>
<td>RELE 1319 Real Estate Finance</td>
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</table>

<table>
<thead>
<tr>
<th>Capstone Experience: RELE 2367</th>
</tr>
</thead>
</table>

Approved Real Estate Electives:
- RELE 1303
- RELE 1307
- RELE 1325
- RELE 1327
- RELE 2331

No course may be repeated for credit.
Respiratory Care

* A criminal background check and/or drug screening is required for all health science students attending clinical courses, or practicum, and may be required prior to admission to the program.

The department of respiratory care offers an associate of applied science degree program. Graduates are qualified to apply to take the Therapist Multiple-Choice Examination administered by the National Board for Respiratory Care.

Due to the limited number of clinical spaces, students are admitted on a competitive basis. All candidates must be counseled by the department of respiratory care at San Jacinto College.

Philosophy

The philosophy of the department of respiratory care adheres to the philosophy of San Jacinto College. Respiratory care is the allied health discipline which provides care through the use of diagnostic testing to patients with abnormalities of the cardiopulmonary systems. Respiratory therapists practice their specialty under the direction of licensed physicians and perform their duties in a variety of settings, including intensive care units, neonatal/pediatric special care units, general hospital wards, emergency/trauma units, extended care facilities and the home.

Due to the nature of the services provided, respiratory therapists must be able to apply knowledge gained through academic education to clinical problems and rationally care for the patient. Graduates of the program offered by the department of respiratory care are prepared as contributing members of the health care team.

Objectives

Upon completion of the program offered by the department of respiratory care, the student should be able to:

1. Utilize patient care processes and scientific principles to provide respiratory care to patients in health care facilities.
2. Participate as a contributing member of the health care team.
3. Assume personal responsibility for continued learning in order to maintain professional competency and promote the advancement of the field of respiratory therapy.

4. Successfully complete the credentialing examinations administered by the National Board for Respiratory Care.

Program Admission Criteria

Students who apply for admission to the department of respiratory care will be selected on the basis of their course work completed and their grade point average.

Applicants must complete 7 semester hours as specified below with at least a B average in the courses and the grade in each of those courses must be a C or better.

BIOL 2404
MATH 1314 or TECM 1301 or higher level Math

Students must apply for admission to the respiratory care program by submitting a formal application and all required documents to the respiratory care program office.

Applicants must meet all College general admission requirements. After acceptance into the program, all applicants must have a physical examination by a licensed physician, physician’s assistant or nurse practitioner; documentation of updated immunizations; and a drug screening. Respiratory care students must earn a grade of C or better in all respiratory care (RSPT) courses, science and mathematics courses, and must maintain an overall grade point average of at least 2.0 in order to graduate from the respiratory care program.

If the student earns a grade of D, W or F in a respiratory care course, the student will be required to repeat the course in which the unsatisfactory grade was earned and pass that course with a grade of C or better in order to progress in the program. A second earned grade of D, W or F in a respiratory care course will result in the student’s dismissal from the program. To request re-admission into the program, the student must submit a written petition to the respiratory care admission committee. If re-admission is granted, the student must satisfy the re-admission criteria specified by the Committee in order to continue in the program.

**Note:**

- All candidates must be counseled by the department of respiratory care at San Jacinto College.
- Applicants must meet all College general admission requirements.
- A criminal background check and/or drug screening is required for all health science students attending clinical courses, or practicum.
- Graduates are qualified to apply for the Therapist Multiple-Choice Examination administered by the National Board for Respiratory Care.
- Students must maintain an overall grade point average of at least 2.0 in order to graduate from the respiratory care program.
All students should take the required academic foundation courses in sequence along with professional course work.

Applicants to the respiratory care program will be notified by mail or email regarding their program admission status. Applicants who are not selected for admission to the respiratory care program may re-apply. Applicants who are accepted for admission into the department of respiratory care, but who do not enroll, must re-apply to be considered for admission at a later date.

A student currently on academic probation is ineligible to enroll in the respiratory care program.

**Application Periods**
Jan. 1 through June 1
Sept. 1 through Nov. 1

Classes begin each Fall and Spring term. For more information, please contact the Respiratory Care Department at 281-998-6150, ext. 1864.

### Respiratory Care (3RESP)

**Associate of Applied Science Degree**

**Central Campus**

**Pre-requisite**

<table>
<thead>
<tr>
<th>Credit</th>
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<tbody>
<tr>
<td>BIOL 2404 Anatomy and Physiology or</td>
</tr>
<tr>
<td>BIOL 2301 Human Anatomy and Physiology I (Lec) and</td>
</tr>
<tr>
<td>BIOL 2101 Human Anatomy and Physiology I (LAB) and</td>
</tr>
<tr>
<td>BIOL 2302 Human Anatomy and Physiology II (Lec) and</td>
</tr>
<tr>
<td>BIOL 2102 Human Anatomy and Physiology II (Lab)</td>
</tr>
<tr>
<td>*TECM 1301 Industrial Mathematics or</td>
</tr>
<tr>
<td>MATH 1314 College Algebra</td>
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**First Term**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>RSPT 1429 Respiratory Care Fundamentals I</td>
</tr>
<tr>
<td>RSPT 1325 Respiratory Care Sciences</td>
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<tr>
<td>RSPT 1340 Advanced Cardiopulmonary Anatomy and Physiology</td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
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**Second Term**

<table>
<thead>
<tr>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>RSPT 1460 Respiratory Care Clinical I</td>
</tr>
<tr>
<td>RSPT 1431 Respiratory Care Fundamentals</td>
</tr>
<tr>
<td>RSPT 2310 Cardiopulmonary Disease</td>
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<tr>
<td>RSPT 2314 Mechanical Ventilation</td>
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**PostY1Summer**

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<tbody>
<tr>
<td>RSPT 2360 Respiratory Care Clinical II</td>
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<tr>
<td>RSPT 2471 Mechanical Ventilation II</td>
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<tr>
<td>RSPT 2317 Respiratory Care Pharmacology</td>
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**Third Term**

<table>
<thead>
<tr>
<th>Credit</th>
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<tbody>
<tr>
<td>RSPT 2361 Respiratory Care Clinical III</td>
</tr>
<tr>
<td>RSPT 2355 Critical Care Monitoring</td>
</tr>
<tr>
<td>RSPT 2353 Neonatal/Pediatric Cardiopulmonary Care</td>
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**Subtotal**

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**Fourth Term**

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<tr>
<td>RSPT 2362 Respiratory Care Clinical IV</td>
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<tr>
<td>RSPT 2130 Respiratory Care Examination Preparation</td>
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<tr>
<td>PSYC 2301 General Psychology</td>
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<tr>
<td>RSPT 2325 Cardiopulmonary Diagnostics</td>
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**Subtotal**

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**Associate of Applied Science Degree Total**

<table>
<thead>
<tr>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>66</td>
</tr>
</tbody>
</table>

**Capstone Experience: RSPT 2325**

**Verification of workplace competencies.**

* Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.

** Note: Course outline is representative of fall entry only. Adjustments will be made for spring entry. For further information concerning respiratory care accreditation, write or call:


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### Surgical Technology

Surgical technologists are an integral part of the surgical team, and work closely with nurses and surgeons to provide the best possible care for the patient during the intraoperative phase of a surgical procedure. Surgical technologists are responsible for assisting during surgery by passing instruments and other equipment to the surgeon in a prescribed manner, and maintaining sterility throughout the surgical procedure.

The goal of the department of surgical technology is to provide students with the opportunity to develop the skills and knowledge necessary to gain employment as entry-level surgical technologists, and to become contributing members of the health care team. The program curriculum is a balance of theoretical and technical courses, with supervised clinical/practicum experience at area hospitals. This combination provides the student an opportunity for educational development and skill competency.

The surgical technology program is accredited by the Commission of Accreditation for Allied Health Education Programs (CAAHEP, 1361 Park Street, Clearwater, Florida; Phone: 727-210-2350; www.caahep.org), effective until 2024. Upon completion of the program, the student is granted a certificate of technology or associate of applied science, and is eligible to take the National Certification Examination given by the National Board of Surgical Technology and Surgical Assisting.

This is a selective admission program. Class size is determined by the availability of clinical space. Limited enrollment ensures a quality laboratory and clinical experience as needed to become a competent entry-level surgical technologist. To be considered for selection to the surgical technology program, the following steps must be completed:


2. Provide official transcripts
a. High School Diploma or GED Certificate required

b. Students with any transfer credits MUST have college transcripts evaluated by San Jacinto College (enrollment services transcript evaluation) prior to submitting an application.

c. Surgical technology department program director has final approval of all transferred courses that apply toward the degree in surgical technology.

d. Transcripts from other colleges must be official and sent to: a) Office of Enrollment Services AND b) the surgical technology office.

3. Completion of all of the following prerequisite courses, with a minimum grade of “C,” before admission to the program.

   a. SCIT 1301, Applied Human Anatomy and Physiology I or
      i. BIOL 2404, Introduction to Anatomy and Physiology
         OR
      ii. BIOL 2301/2101 or BIOL 2401, Human Anatomy and Physiology I AND
      iii. BIOL 2302/2102 or BIOL 2402, Human Anatomy and Physiology II

   b. HPRS 1206, Medical Terminology

   c. HPRS 1201, Introduction to Health Professions – Surgical Technology

   In order for credit earned in a required biology course to be applicable to the surgical technology program, credit must have been earned within the past five years and the grade earned must have been a C or above. Credit earned in a required biology course exceeds the five-year stipulation if the credit was earned five or more years prior to the first term in which the student enrolls into the program.

4. Attend a mandatory information meeting as posted on the San Jacinto College website.

5. Complete and submit a surgical technology application by the deadlines of June 1 or October 15.

Program Admission Criteria
The surgical technology program accepts applicants twice a year. Application periods are April 1 through June 1, for Fall admission; and September 1 through October 15 for Spring admission. Students must apply for admission to the department of surgical technology by submitting a formal application to the department, and by submitting all required official documents to the Office of Enrollment Services.

Surgical Technology
Students who apply for admission will be selected based on their completion of the prerequisite course work and their total score on the application rubric. Applicants must complete prerequisite courses with the grade of C or better in each course. Meeting minimal entry requirements does not guarantee program admission. Students must attend a mandatory information meeting prior to submission of their application, as posted on the San Jacinto College website.

Applicants to the surgical technology program will be notified regarding their program admission status. Applicants who are not selected for admission to the surgical technology program may re-apply. Applicants who are accepted for admission, but do not accept the position or do not complete the enrollment process, must re-apply to be considered for future admission. It is the student’s responsibility to stay current with any changes in the program requirements. A student currently on academic probation is ineligible to enroll in the surgical technology program.

After acceptance into the program, an applicant must have a physical examination by a licensed physician, physician’s assistant or nurse practitioner; must submit documentation of updated immunizations; and all documents must be submitted to Certified Background, along with a specified fee. A criminal background check and drug screening are required for all health science students attending clinical courses, and are required prior to admission to the surgical technology program.

Student Progression:
Surgical technology students must earn a grade of C or above in all surgical technology courses and maintain an overall cumulative grade point average of at least 2.0 in order to graduate from the surgical technology program. In subsequent terms, should a second grade of D, W or F be earned in any surgical technology course, even though the student may have repeated the course in which the first grade of D, W or F was earned and received, the student will be dismissed from the surgical technology program. A student may appeal their dismissal with the Surgical Technology Appeals Committee.

Students are required to purchase uniforms and accessories specified by the department of surgical technology. Each student is responsible for his/her own transportation to the clinical areas. Each student who registers for surgical technology courses is required to purchase student liability insurance.

Surgical Technology (4SURT)

<table>
<thead>
<tr>
<th>Certificate of Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Campus</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pre-requisite</th>
<th>Credit</th>
</tr>
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<tbody>
<tr>
<td>*SCIT 1307 Applied Human Anatomy and Physiology I ........ 3</td>
<td></td>
</tr>
<tr>
<td>HPRS 1201 Introduction to Health Professions ...................... 2</td>
<td></td>
</tr>
<tr>
<td>HPRS 1206 Essential of Medical Terminology ...................... 2</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>7</strong></td>
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<table>
<thead>
<tr>
<th>First Term</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRGT 1260 Clinical I Surgical ........................................ 2</td>
<td></td>
</tr>
<tr>
<td>SRGT 1509 Fundamentals of Perioperative Concepts and Techniques ........................................ 5</td>
<td></td>
</tr>
<tr>
<td>SRGT 1505 Introduction to Surgical Technology .......................... 5</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>12</strong></td>
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</table>
**Second Term**
- SRGT 1360 Clinical II Surgical ................................................. 3
- SRGT 1541 Surgical Procedures I ............................................. 5
- **HPRS 2301 Pathophysiology ................................................. 3
- HPRS 2200 Pharmacology for Health Professions .................. 2

Subtotal 13

**Third Term**
- SRGT 2460 Clinical III Surgical ............................................. 4
- SRGT 1542 Surgical Procedures II .......................................... 5
- SRGT 2130 Professional Readiness ........................................... 1

Subtotal 10

**Certificate of Technology Total** 42

**Capstone Experience:** SRGT 1542 and SRGT 2460

*SCIT 1307 or BIOL 2404 or BIOL 2401 and BIOL 2402 or BIOL 2301/2101 and BIOL 2302/2102 (Lec/Lab co-requisites)
**HPRS 2301 or BIOL 2420 or BIOL 2320/2120 (Lec/Lab co-requisites)

Upon completion of the program, the student receives a certificate of technology and is eligible to write the National Certification Examination to become a certified surgical technologist.

**Surgical Technology (3SURT)**

**Associate of Applied Science Degree**

**Central Campus**

**Pre-requisite**
- SCIT 1307 Applied Anatomy and Physiology I or BIOL 2404 Introduction to Anatomy and Physiology or BIOL 2301 Human Anatomy and Physiology I (Lec) and BIOL 2101 Human Anatomy and Physiology I (Lab) and BIOL 2302 Human Anatomy and Physiology I (Lec) and BIOL 2102 Human Anatomy and Physiology I (Lab) .......... 3
- HPRS 1206 Essentials of Medical Terminology ......................... 2
- HPRS 1201 Introduction to Health Professions ........................... 2

Subtotal 7

**First Term**
- SRGT 1260 Clinical I Surgical ................................................. 2
- SRGT 1509 Fundamentals of Perioperative Concepts and Techniques ............................................. 5
- SRGT 1505 Introduction to Surgical Technology ....................... 5

Subtotal 12

**Second Term**
- SRGT 1360 Clinical II Surgical ................................................. 3
- SRGT 1541 Surgical Procedures I ............................................. 5
- HPRS 2301 Pathophysiology or BIOL 2320 Microbiology for Health Science Majors (Lec) and BIOL 2120 Microbiology for Health Science Majors (Lab)* .......... 3
- HPRS 2200 Pharmacology for Health Professions .................. 2

Subtotal 13

**Third Term**
- SRGT 2460 Clinical III Surgical ............................................. 4
- SRGT 1542 Surgical Procedures II .......................................... 5
- SRGT 2130 Professional Readiness ........................................... 1
- ENGL 1301 Composition I ..................................................... 3

Subtotal 13

**Fourth Term**
- MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher ............................................. 3
- ENGL 2311 Technical and Business Writing or ENGL 1302 English Composition II ................................. 3
- PSYC 2301 General Psychology .................................................. 3
- *Humanities or Fine Arts ......................................................... 3
- Free Elective ............................................................................ 3

Subtotal 15

**Associate of Applied Science Degree Total** 60

**Capstone Experience:** SRGT 1542 and SRGT 2460

Verification of workplace competencies.

*Courses which satisfy this requirement are listed in the Humanities and Fine Arts section of the Transfer Core Curriculum.

**Welding Technology**

**Art-Welding (6WLD-ART)**

**Occupational Certificate**

**North Campus**

**First Term**
- WLDG 1305 Art Metals .......................................................... 3
- WLDG 1308 Metal Sculpture .................................................... 3
- WLDG 1528 Introduction to Shielded Metal Arc Welding (SMAW) ................................................................. 5
- WLDG 1530 Introduction to Gas Metal Tungsten Arc Welding (GTAW) ................................................................. 5

**Occupational Certificate Total** 16

**Capstone Course:** WLDG 1530

**Stick Pipe Welder (6WLD-STI)**

**Occupational Certificate**

**Central and North Campuses**

This series of courses introduces the student to various aspects within the Shielded Metal Arc Welding (SMAW) of pipe according to common welding codes and procedures. Upon completion of this certificate, student should be successful at completing SMAW pipe weld tests as required by industry and fabrication companies. These courses may also be applied toward the combination pipe welder certificate of technology, and the Associate of Applied Science in Welding Technology.

**First Term**
- WLDG 1528 Introduction to Shielded Metal Arc Welding (SMAW) ................................................................. 5
- WLDG 2506 Intermediate Pipe Welding .................................. 5
- WLDG 2543 Advanced Shield Metal Arc Welding (SMAW) ... 5
- WLDG 2553 Advanced Pipe Welding ...................................... 5

**Occupational Certificate Total** 20

**Capstone Experience:** WLDG 2553

www.sanjac.edu
### Structural Welder (6WLD-STR)

**Occupational Certificate**  
**Central and North Campuses**

The structure welder certificate provides students with entry-level skills for immediate employment. Courses focus on knowledge and skills required for Shielded Metal Arc Welding (SMAW) to prepare students to pass many structural welding tests as required by industry, fabrication companies, and shipyards. These courses may also be applied toward the stick pipe welding occupational certificate, the combination welder certificate of technology and the Associate of Applied Science in Welding Technology.

**First Term**  
- **WLDG 1528 Introduction to Shielded Metal Arc Welding (SMAW)**  
- **WLDG 2543 Advanced Shielded Metal Arc Welding (SMAW)**  
- **WLDG 2580 Cooperative Education Welding or WLDG 2553 Advanced Pipe Welding or WLDG 1534 Introduction to Gas Tungsten Arc Welding (GTAW) or WLDG 2506 Intermediate Pipe Welding**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>WLDG 1528 Introduction to Shielded Metal Arc Welding (SMAW)</td>
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<tr>
<td>WLDG 2543 Advanced Shielded Metal Arc Welding (SMAW)</td>
<td>5</td>
</tr>
<tr>
<td>WLDG 2580 Cooperative Education Welding or WLDG 2553 Advanced Pipe Welding or WLDG 1534 Introduction to Gas Tungsten Arc Welding (GTAW) or WLDG 2506 Intermediate Pipe Welding</td>
<td>5</td>
</tr>
</tbody>
</table>

**Occupational Certificate Total**  
15

**External Field Experience:** WLDG 2580

**Capstone Experience:** WLDG 2551

### Combination Welder (4WLD-C)

**Certificate of Technology**  
**Central and North Campuses**

The combination welder Certificate of Technology is designed to give intermediate and advanced welding experience to those students interested in taking Shielded Metal Arc (SMAW) Welding and Gas Tungsten Arc (GTAW) Welding on plate and pipe to meet certification tests required by industry. Instruction is provided on plate and pipe welding positions on carbon steel.

**First Term**  
- **WLDG 1528 Introduction to Shielded Metal Arc Welding (SMAW)**  
- **WLDG 1534 Introduction to Gas Tungsten Arc Welding (GTAW)**  
- **WLDG 2551 Advanced Gas Tungsten Arc Welding (GTAW) or WLDG 2506 Intermediate Pipe Welding**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLDG 1528 Introduction to Shielded Metal Arc Welding (SMAW)</td>
<td>5</td>
</tr>
<tr>
<td>WLDG 1534 Introduction to Gas Tungsten Arc Welding (GTAW)</td>
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</tr>
<tr>
<td>WLDG 2551 Advanced Gas Tungsten Arc Welding (GTAW) or WLDG 2506 Intermediate Pipe Welding</td>
<td>5</td>
</tr>
</tbody>
</table>

**Occupational Certificate Total**  
15

**Second Term**  
- **WLDG 1530 Introduction to Gas Metal Arc Welding (GMAW)**  
- **WLDG 1534 Introduction to Gas Tungsten Arc Welding (GTAW)**  
- **WLDG 2551 Advanced Gas Tungsten Arc Welding (GTAW) or WLDG 2506 Intermediate Pipe Welding**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>WLDG 1530 Introduction to Gas Metal Arc Welding (GMAW)</td>
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<td>WLDG 1534 Introduction to Gas Tungsten Arc Welding (GTAW)</td>
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<tr>
<td>WLDG 2551 Advanced Gas Tungsten Arc Welding (GTAW) or WLDG 2506 Intermediate Pipe Welding</td>
<td>5</td>
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</tbody>
</table>

**Certificate of Technology Total**  
30

**External Field Experience:** WLDG 2580

**Capstone Experience:** WLDG 2551

### Gas Shielded Welding (4WLD-GAS)

**Certificate of Technology**  
**Central and North Campuses**

The Gas Shielded Welding Certificate of Technology is designed to give entry-level welding experience to those students interested in taking Gas Metal Arc (GMAW) and Gas Tungsten Arc (GTAW) plate and pipe welding certification tests as required by industry. Instruction is provided on plate and pipe welding positions on carbon steel.

**First Term**  
- **WLDG 1530 Introduction to Gas Metal Arc Welding (GMAW)**  
- **WLDG 1534 Introduction to Gas Tungsten Arc Welding (GTAW)**  
- **WLDG 2551 Advanced Gas Tungsten Arc Welding (GTAW) or WLDG 2506 Intermediate Pipe Welding**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>WLDG 1530 Introduction to Gas Metal Arc Welding (GMAW)</td>
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</tr>
<tr>
<td>WLDG 1534 Introduction to Gas Tungsten Arc Welding (GTAW)</td>
<td>5</td>
</tr>
<tr>
<td>WLDG 2551 Advanced Gas Tungsten Arc Welding (GTAW) or WLDG 2506 Intermediate Pipe Welding</td>
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**Occupational Certificate Total**  
15

**Second Term**  
- **WLDG 2513 Intermediate Welding Using Multi Processes**  
- **Approved Elective**

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<tr>
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</thead>
<tbody>
<tr>
<td>WLDG 2513 Intermediate Welding Using Multi Processes</td>
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<tr>
<td>Approved Elective</td>
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</table>

**Certificate of Technology Total**  
24

**External Field Experience:** WLDG 2580

**Capstone Experience:** WLDG 2551

### Welding Technology (3WLD)

**Associate of Applied Science Degree**  
**Central and North Campuses**

The growing demand for qualified welders has necessitated the availability of a curriculum designed to meet the needs of the welding industry. Students graduating from the program will be skillful and have a good understanding of the related and
technical information associated with welding. Graduates should be qualified to pass the entry-level certification tests as required by industry. Students completing the program outlined below will earn an associate of applied science degree.

The curriculum focuses on the introductory, advanced and high-technology welding skills required in manufacturing, industry and in research.

**First Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLDG 1528 Introduction to Shielded Metal</td>
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</tr>
<tr>
<td>Arc Welding (SMAW)</td>
<td>5</td>
</tr>
<tr>
<td>WLDG 1530 Introduction to Gas Metal</td>
<td>5</td>
</tr>
<tr>
<td>Arc Welding (GMAW)</td>
<td>5</td>
</tr>
<tr>
<td>Speech</td>
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</tr>
<tr>
<td>MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra or higher</td>
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**Subtotal**

**Second Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLDG 1534 Introduction to Gas Tungsten</td>
<td>5</td>
</tr>
<tr>
<td>Arc Welding (GTAW)</td>
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</tr>
<tr>
<td>WLDG 2543 Advanced Shielded Metal Arc Welding (SMAW)</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
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</tr>
<tr>
<td>*Humanities or Fine Arts</td>
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**Subtotal**

**Third Term**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>WLDG 2506 Intermediate Pipe Welding</td>
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</tr>
<tr>
<td>WLDG 2551 Advanced Gas Tungsten Arc Welding (GTAW)</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 2311 Technical and Business Writing or ENGL 1302 Composition II</td>
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</tr>
<tr>
<td>ITSC 1309 Integrated Software Applications I or BCIS 1305 Business Computer Applications</td>
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**Subtotal**

**Fourth Term**

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<th>Credit</th>
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<td>WLDG 2553 Advanced Pipe Welding</td>
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<tr>
<td>*Social and Behavioral Sciences</td>
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<tr>
<td>METL 1405 Welding Metallurgy I or WLDG 2513 Intermediate Welding Using Multiple Processes or WLDG 2580 Cooperative Education-Welding Technology/Welder</td>
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</table>

**Subtotal**

**Associate of Applied Science Degree Total**

**External Field Experience: WLDG 2580**

**Capstone Experience: WLDG 2513 or METL 1405**

* Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core curriculum.

**Pipefitting and Fabrication (CE-PIPEFT)**

**Continuing Education Certificate Central and North Campuses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Contact Hours</th>
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</thead>
<tbody>
<tr>
<td>PFPB 1008 Basic Pipefitting Skills</td>
<td>64</td>
</tr>
<tr>
<td>PFPB 1043 Pipefitting Fabrication and Blueprint Reading</td>
<td>64</td>
</tr>
<tr>
<td>PFPB 2032 Pipefitting Fabrication and Blueprint Reading</td>
<td>64</td>
</tr>
<tr>
<td>PFPB 2033 Pipefitting, Advanced Fabrication and Installation</td>
<td>64</td>
</tr>
</tbody>
</table>

**Certificate of Technology Total**

**Plumbing and Pipefitting**

**Plumbing and Pipefitting Technology**

**Continuing Education Certificate North Campus**

<table>
<thead>
<tr>
<th>Course</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFPB 1003 Basic Plumbing Skills (Plumbing I)</td>
<td>72</td>
</tr>
<tr>
<td>PFPB 1001 Basic Pipefitting: Installation and Rigging (Plumbing IIA)</td>
<td>72</td>
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<tr>
<td>PFPB 1071 Plumbing Standards for Water Supplies (Plumbing IIB)</td>
<td>72</td>
</tr>
<tr>
<td>PFPB 2033 Pipefitting: Advanced Fabrication and Installation (Plumbing IIIA)</td>
<td>72</td>
</tr>
<tr>
<td>PFPB 2071 Installation and Repair of Potable Water Systems (Plumbing IIIIB)</td>
<td>72</td>
</tr>
<tr>
<td>PFPB 2032 Pipefitting Standards, Specifications, and Installation (Plumbing IVA)</td>
<td>72</td>
</tr>
<tr>
<td>PFPB 2031 Advanced Technologies and Specialized Applications for Piping Trades (Plumbing IVB)</td>
<td>72</td>
</tr>
</tbody>
</table>

**Certificate of Technology Total**

**Truck Driving (Commercial)**

**Central Campus**

**Continuing Education**

**Admission Requirements**

Applicants for the San Jacinto College commercial truck driving courses must:

- Be at least 18 years of age and pass a mandatory drug test.
- Be in reasonably good physical condition and have no serious physical handicaps. (For guidelines, please read the Federal...
Continuing and Professional Development

Motor Carrier Safety Regulations and Noise Emission Requirements, Chapter III—Federal Highway Administration, Department of Transportation—Subpart E—Physical Qualifications and Examinations—391.41)

- If born outside the U.S. or a graduate of a high school outside the U.S., all applicants must be able to provide adequate proof of competency in English or pass the English Proficiency Test administered by the Testing Center at the College. For appointments with the Testing Center, call 281.476.2025.
- If enrolling with an F-1 Visa, must be certified for English competency and be approved by the International Student Advisor, located in room 156 in the Administration Building. For appointments with the Advisor, call 281.476.1840.
- Have a valid Texas driver’s license.
- Have a valid Social Security number.

Course Information
Day classes meet Monday through Thursday from 7 a.m. until 6 p.m. for six weeks. Weekend classes meet Saturdays and Sundays from 7 a.m. until 6 p.m. for 12 weeks. Each student will log approximately 300 miles of actual behind-the-wheel driving, pulling empty and loaded trailers. Total truck maintenance and safety, Department of Transportation Federal Motor Carrier Safety Regulations, and driving courtesy are covered. The commercial truck driving curriculum is designed to provide basic training in preparation for employment as a professional truck driver. A continuing education six-hour defensive driving course is also included.

Upon successful completion of the prescribed course work, students receive an occupational certificate and a Department of Transportation certification. These non-credit courses are approved for Veterans Administration educational assistance. Job assistance is available to qualified students through the commercial truck driving department.

Registration and Fees
Registration is handled on a first-come, first-served basis. It is recommended that any interested students register early in order to guarantee a place in the class. Payment of the total cost of both courses is due upon registration. Students are asked to contact the department chair for the most recent costs. (Tuition, fees and contact hours are subject to change without notice.) For more information, call 281.476.1872.

Truck Driving (Commercial)

Occupational Certificate
Continuing Education
First Course Contact Hours
CVOP 1013 Professional Truck Driving I .................................... 126

Second Course
CVOP 1040 Professional Truck Driving II ................................ 120

Occupational Certificate Total 246

Capstone Experience: Department of Transportation (DOT) Written and Driving Examination

* Commercial truck driving courses are offered through the cooperation of the Industrial Technology Division and the Continuing Education Office. Students who successfully complete the above course(s) will receive credit in Continuing Education Units (CEUs) equal to 1.0 CEU per 10 contact hours in class.

Combination Welding (CE-WLDG)

Continuing Education Certificate
Central and North Campuses

WLDG 1028 Introduction to Shielded Metal Arc Welding (SMAW) ........................................ 128
WLDG 1034 Introduction to Gas Tungsten Arc Welding (GTAW) ........................................ 128
WLDG 1035 Introduction to Pipe Welding ........................................ 128
WLDG 2043 Advanced Shielded Metal Arc Welding (SMAW) ...... 128
WLDG 2051 Advanced Gas Tungsten Arc Welding (GTAW) ............ 128
WLDG 2053 Advanced Pipe Welding ........................................ 128

Certificate of Technology Total 768

Capstone Experience: WLDG 2051

Sheet Metal Welder (CE-WLDSM)

Continuing Education Certificate
North Campus
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCHN 1001</td>
<td>Sheet Metal I</td>
<td>72</td>
</tr>
<tr>
<td>MCHN 1049</td>
<td>Sheet Metal II</td>
<td>72</td>
</tr>
<tr>
<td>MCHN 1071</td>
<td>Sheet Metal IIB</td>
<td>72</td>
</tr>
<tr>
<td>MCHN 1053</td>
<td>Sheet Metal III</td>
<td>72</td>
</tr>
<tr>
<td>MCHN 1072</td>
<td>Sheet Metal IIIB</td>
<td>72</td>
</tr>
<tr>
<td>MCHN 2030</td>
<td>Sheet Metal IV</td>
<td>72</td>
</tr>
<tr>
<td>MCHN 2071</td>
<td>Sheet Metal IVB</td>
<td>72</td>
</tr>
</tbody>
</table>

Certificate of Technology Total 504

Capstone Experience: MCHN 2071
San Jacinto Community College District

Course Descriptions

· Academic and Technical Courses
· Continuing and Professional Development Courses
An alphabetic prefix called a rubric, usually containing four characters, is used to designate the subject area of the course or department through which the course is offered.

Each course is given a four-character numeric code, called the course number. The first digit denotes the academic level or year in which college-level courses are usually taken. The number “1” indicates freshman or first-year courses; the number “2” indicates sophomore or second-year courses. When the first number is “0,” the course is College Preparatory level. The second digit represents the semester credit hour (SCH) value of the course. The third and fourth digits are for departmental sequencing and make the course number unique within the subject area of the department. Consecutive numbers are not always used; however, in general, higher numbers are used for the more advanced courses while lower numbers are used for less advanced courses.

Numbers in parentheses at the end of each course description indicate the following: first digit, semester credit hours; second digit, lecture hours per week; third digit, laboratory hours per week.
# Index of Course Rubrics

<table>
<thead>
<tr>
<th>ABBR</th>
<th>PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABDR</td>
<td>Automotive Collision Repair Technology</td>
</tr>
<tr>
<td>ACCT</td>
<td>Accounting</td>
</tr>
<tr>
<td>ACNT</td>
<td>Accounting</td>
</tr>
<tr>
<td>AGRI</td>
<td>Agriculture/Agribusiness</td>
</tr>
<tr>
<td>AFSC</td>
<td>Military Science</td>
</tr>
<tr>
<td>AIRP</td>
<td>Aeronautical Technology (Aircraft Pilot)</td>
</tr>
<tr>
<td>ANTH</td>
<td>Anthropology</td>
</tr>
<tr>
<td>ARCE</td>
<td>Engineering Design Graphics</td>
</tr>
<tr>
<td>ARTC</td>
<td>Art and Design</td>
</tr>
<tr>
<td>ARTC</td>
<td>Engineering Design Graphics</td>
</tr>
<tr>
<td>ARTS</td>
<td>Art</td>
</tr>
<tr>
<td>ARTS</td>
<td>Art and Design</td>
</tr>
<tr>
<td>ARTV</td>
<td>Art and Design</td>
</tr>
<tr>
<td>AUMT</td>
<td>Automotive Technology</td>
</tr>
<tr>
<td>AVIM</td>
<td>Aeronautical Technology (Aviation Management)</td>
</tr>
<tr>
<td>BCIS</td>
<td>Business</td>
</tr>
<tr>
<td>BIOL</td>
<td>Biology</td>
</tr>
<tr>
<td>BIOM</td>
<td>Biomedical Clinical Equipment</td>
</tr>
<tr>
<td>BMGT</td>
<td>Business Management</td>
</tr>
<tr>
<td>BUSG</td>
<td>Business</td>
</tr>
<tr>
<td>BUSG</td>
<td>Business Management</td>
</tr>
<tr>
<td>BUSI</td>
<td>Business</td>
</tr>
<tr>
<td>BUSI</td>
<td>Business Management</td>
</tr>
<tr>
<td>CBFM</td>
<td>Process Technology</td>
</tr>
<tr>
<td>CDEC</td>
<td>Child Development/Early Childhood Education</td>
</tr>
<tr>
<td>CETT</td>
<td>Biomedical Clinical Equipment</td>
</tr>
<tr>
<td>CETT</td>
<td>Electrical Technology</td>
</tr>
<tr>
<td>CETT</td>
<td>Electronics Technology</td>
</tr>
<tr>
<td>CETT</td>
<td>Instrumentation Technology</td>
</tr>
<tr>
<td>CHEF</td>
<td>Culinary Arts</td>
</tr>
<tr>
<td>CHEM</td>
<td>Chemistry</td>
</tr>
<tr>
<td>CHIN</td>
<td>Chinese</td>
</tr>
<tr>
<td>CJCR</td>
<td>Criminal Justice</td>
</tr>
<tr>
<td>CJLE</td>
<td>Criminal Justice Law Enforcement</td>
</tr>
<tr>
<td>CJSA</td>
<td>Criminal Justice</td>
</tr>
<tr>
<td>CMSW</td>
<td>Mental Health Services</td>
</tr>
<tr>
<td>CNBT</td>
<td>Construction Management Technology</td>
</tr>
<tr>
<td>COMM</td>
<td>Communications/Journalism</td>
</tr>
<tr>
<td>COMM</td>
<td>Video and Film Production</td>
</tr>
<tr>
<td>COSC</td>
<td>Computer Science</td>
</tr>
<tr>
<td>CPMT</td>
<td>Electronics Technology</td>
</tr>
<tr>
<td>CRIJ</td>
<td>Criminal Justice</td>
</tr>
<tr>
<td>CSME</td>
<td>Cosmetology</td>
</tr>
<tr>
<td>CTEC</td>
<td>Instrumentation Technology</td>
</tr>
<tr>
<td>CTEC</td>
<td>Process Technology</td>
</tr>
<tr>
<td>CTMT</td>
<td>Medical Imaging Technology</td>
</tr>
<tr>
<td>CULA</td>
<td>Culinary Arts</td>
</tr>
<tr>
<td>CVOP</td>
<td>Truck Driving (Commercial) CPD</td>
</tr>
<tr>
<td>DAAC</td>
<td>Mental Health Services</td>
</tr>
<tr>
<td>DANC</td>
<td>Dance</td>
</tr>
<tr>
<td>DEMR</td>
<td>Diesel Technology</td>
</tr>
<tr>
<td>DFTG</td>
<td>Engineering Design Graphics</td>
</tr>
<tr>
<td>DITA</td>
<td>Dietetics</td>
</tr>
<tr>
<td>DMSO</td>
<td>Medical Imaging Technology</td>
</tr>
<tr>
<td>DNA</td>
<td>Dental Assisting</td>
</tr>
<tr>
<td>DRAM</td>
<td>Theatre and Film</td>
</tr>
<tr>
<td>DSVT</td>
<td>Medical Imaging Technology</td>
</tr>
<tr>
<td>ECON</td>
<td>Economics</td>
</tr>
<tr>
<td>EDUC</td>
<td>Education</td>
</tr>
<tr>
<td>EECT</td>
<td>Electrical Technology</td>
</tr>
<tr>
<td>EECT</td>
<td>Electronics Technology</td>
</tr>
<tr>
<td>ELMT</td>
<td>Electronics Technology</td>
</tr>
<tr>
<td>ELMT</td>
<td>Process Technology</td>
</tr>
<tr>
<td>ELPT</td>
<td>Electrical Technology</td>
</tr>
<tr>
<td>EMSP</td>
<td>Emergency Medical Technology</td>
</tr>
<tr>
<td>ENER</td>
<td>Instrumentation Technology</td>
</tr>
<tr>
<td>ENER</td>
<td>Process Technology</td>
</tr>
<tr>
<td>ENGL</td>
<td>English</td>
</tr>
<tr>
<td>ENGR</td>
<td>Engineering</td>
</tr>
<tr>
<td>EPCT</td>
<td>Environmental Health and Safety Technology</td>
</tr>
<tr>
<td>EPCT</td>
<td>Instrumentation Technology</td>
</tr>
<tr>
<td>ESOL</td>
<td>English for Speakers of Other Languages</td>
</tr>
<tr>
<td>ETWR</td>
<td>English</td>
</tr>
<tr>
<td>FCEL</td>
<td>Electronics Technology</td>
</tr>
<tr>
<td>FDNS</td>
<td>Dietetics</td>
</tr>
<tr>
<td>FIRS</td>
<td>Fire Protection Technology</td>
</tr>
<tr>
<td>FIRT</td>
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</tr>
<tr>
<td>FITT</td>
<td>Personal Trainer</td>
</tr>
<tr>
<td>FREN</td>
<td>French</td>
</tr>
<tr>
<td>GAME</td>
<td>Computer Information Technology</td>
</tr>
<tr>
<td>GEOG</td>
<td>Geography</td>
</tr>
<tr>
<td>GEOL</td>
<td>Geology</td>
</tr>
<tr>
<td>GERM</td>
<td>German</td>
</tr>
<tr>
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<td>Government</td>
</tr>
<tr>
<td>GPH</td>
<td>Art and Design</td>
</tr>
<tr>
<td>GUST</td>
<td>College Preparatory</td>
</tr>
<tr>
<td>HART</td>
<td>Air Conditioning Technology</td>
</tr>
<tr>
<td>HECO</td>
<td>Dietetics</td>
</tr>
<tr>
<td>HIST</td>
<td>History</td>
</tr>
<tr>
<td>HITT</td>
<td>Health Information Management</td>
</tr>
<tr>
<td>HMSC</td>
<td>International Business, Logistics &amp; Maritime</td>
</tr>
<tr>
<td>HPRS</td>
<td>Eye Care Technology</td>
</tr>
<tr>
<td>HPRS</td>
<td>Health Information Management</td>
</tr>
<tr>
<td>HPRS</td>
<td>Medical Laboratory Technology</td>
</tr>
<tr>
<td>HPRS</td>
<td>Physical Education/Health Education</td>
</tr>
<tr>
<td>HPRS</td>
<td>Respiratory Care</td>
</tr>
<tr>
<td>HPRS</td>
<td>Surgical Technology</td>
</tr>
<tr>
<td>HRPO</td>
<td>Business Management</td>
</tr>
<tr>
<td>HUMA</td>
<td>Humanities</td>
</tr>
<tr>
<td>IBUS</td>
<td>International Business, Logistics &amp; Maritime</td>
</tr>
<tr>
<td>IFWA</td>
<td>Culinary Arts</td>
</tr>
<tr>
<td>IFWA</td>
<td>Dietetics</td>
</tr>
<tr>
<td>IMED</td>
<td>Computer Information Technology</td>
</tr>
<tr>
<td>IMED</td>
<td>Art and Design</td>
</tr>
<tr>
<td>IND</td>
<td>Interior Design</td>
</tr>
<tr>
<td>INEW</td>
<td>Computer Information Technology</td>
</tr>
<tr>
<td>INRW</td>
<td>Integrated Reading and Writing</td>
</tr>
<tr>
<td>INTC</td>
<td>Instrumentation Technology</td>
</tr>
<tr>
<td>ITCC</td>
<td>Computer Information Technology</td>
</tr>
<tr>
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</tr>
<tr>
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</tr>
<tr>
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<tr>
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</tr>
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</tr>
</tbody>
</table>
## Course Descriptions

<table>
<thead>
<tr>
<th>ABBR</th>
<th>PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGLA</td>
<td>Paralegal</td>
</tr>
<tr>
<td>LMGT</td>
<td>International Business, Logistics &amp; Maritime</td>
</tr>
<tr>
<td>LTCA</td>
<td>Long Term Care Administration</td>
</tr>
<tr>
<td>MAMT</td>
<td>Medical Imaging Technology</td>
</tr>
<tr>
<td>MARA</td>
<td>Maritime Administration</td>
</tr>
<tr>
<td>MART</td>
<td>International Business, Logistics &amp; Maritime</td>
</tr>
<tr>
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<td>Mathematics</td>
</tr>
<tr>
<td>MDCA</td>
<td>Medical Assisting</td>
</tr>
<tr>
<td>MCHN</td>
<td>Sheet Metal CPD</td>
</tr>
<tr>
<td>METL</td>
<td>Non-Destructive Testing Technology</td>
</tr>
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<td>MLAB</td>
<td>Medical Laboratory Technology</td>
</tr>
<tr>
<td>MRIT</td>
<td>Medical Imaging Technology</td>
</tr>
<tr>
<td>MRKG</td>
<td>Business Management</td>
</tr>
<tr>
<td>MRMT</td>
<td>Business Office Technology</td>
</tr>
<tr>
<td>MSCI</td>
<td>Military Science</td>
</tr>
<tr>
<td>MSSG</td>
<td>Massage Therapy</td>
</tr>
<tr>
<td>MUAP</td>
<td>Music (Private Lessons)</td>
</tr>
<tr>
<td>MUSB</td>
<td>Audio Engineering</td>
</tr>
<tr>
<td>MUSC</td>
<td>Audio Engineering</td>
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<td>Music</td>
</tr>
<tr>
<td>MUEN</td>
<td>Music</td>
</tr>
<tr>
<td>NAUT</td>
<td>Maritime Transportation</td>
</tr>
<tr>
<td>NDTE</td>
<td>Non-Destructive Testing Technology</td>
</tr>
</tbody>
</table>

### Definitions

**Course Number:** A four letter rubric (subject) and four digit number: SUBJECT 1234. First digit “0” indicates College Preparatory, “1” indicates freshman level; “2” indicates sophomore level. Second digit indicates number of semester hours of credit. Third and fourth digits uniquely identify the course.

**Course Title:** Descriptive title for transcript

**Description:** A short description of the course content.

**Course Prerequisites:** Courses or basic skill levels as defined by Texas Success Initiative required before enrollment.

**(SCH:LEC-LAB):** SCH = Semester credit hours of the course; LEC = Lecture contact hours per week for a 16-week course; LAB = Lab contact hours in a 16-week course.
Listed on the following pages are the course descriptions for classes available at San Jacinto Community College. The descriptions will help you choose courses which best fit your degree plan, career goals, and/or transfer requirements.

The information about each course includes the course rubric and number, title, a brief description, any prerequisites or co-requisites, the semester credit hour, and the weekly lecture and/or lab hours.

An Index to Disciplines and an Index of Course Rubrics are located on the front part of this section along with helpful definitions.

Note: Courses may not be offered online every semester.
ABDR 2257 Collision Shop Management
This course covers examination of shop management functions and decision-making processes including planning, organizing, leading and staffing used in collision repair shops to ensure operational profitability. (2:2:1)

ABDR 2353 Color Analysis and Paint Matching
This is an advanced course in color theory, analysis, tinting, and advanced blending techniques for commercially acceptable paint matching. Prerequisite: Reading level 4 (3:2-2)

ABDR 2380 Cooperative Education - Autobody/Collision and Repair Technology
Career-related activities encountered in the student’s area of specialization are 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. This course also includes a lecture component. This may be a paid or unpaid experience. Prerequisite: Reading level 4 (3:1-14)

ABDR 2502 Auto Body Mechanical and Electrical Service
This is a course in the repair, replacement, and/or service of collision damaged mechanics or electrical systems. Topics include drive train removal, reinstallation and service; cooling system service and repair; exhaust system service; and emission control systems. Additional topics include wire and connector repair, reading diagrams, and troubleshooting. Prerequisite: Reading level 4 (5:3-5)

ABDR 2541 Major Collision Repair and Panel Replacement
Focusing on instruction in preparation of vehicles for major repair processes. This course covers interpreting information from damage reports, planning repair sequences, selecting appropriate tools, and organizing removed parts for reinstallation. Prerequisite: Reading level 4 (5:3-5)

ABDR 2549 Advanced Refinishing
This course focuses on application of multi-stage refinishing techniques and advanced skill development solving refinishing problems. Includes application of multi-stage refinishing with emphasis on formula mixing and special spraying techniques. (5:3-5)

ABDR 2551 Specialized Refinishing Techniques
This course focuses on advanced topics in specialty automotive refinishing. Emphasis is on refinishing of plastics, fiberglass, aluminum and galvanized panels, as well as on custom graphics and current industry innovations. Prerequisite: Reading level 4 (5:3-5)

ACCT 2301 Principles of Financial Accounting
This course is an introduction to the fundamental concepts of financial accounting as prescribed by U.S. generally accepted accounting principles (GAAP) as applied to transactions and events that affect business organizations. Students will examine the procedures and systems to accumulate, analyze, measure, and record financial transactions. Students will use recorded financial information to prepare a balance sheet, income statement, statement of cash flows, and statement of shareholders’ equity to communicate the business entity’s results of operations and financial position to users of financial information who are external to the company. Students will study the nature of assets, liabilities, and owners’ equity while learning to use reported financial information for purposes of making decisions about the company. Students will be exposed to International Financial Reporting Standards (IFRS). Prerequisite: Reading level 7, Math Level 9 (3:3-1.5)

ACCT 2302 Principles of Managerial Accounting
This course is an introduction to the fundamental concepts of managerial accounting appropriate for all organizations. Students will study information from the entity’s accounting system relevant to decisions made by internal managers, as distinguished from information relevant to users who are external to the company. The emphasis is on the identification and assignment of product costs, operational budgeting and planning, cost control, and management decision making. Topics include product costing methodologies, cost behavior, operational and capital budgeting, and performance evaluation. Prerequisite: ACCT 2301 (3:3-1.5)

ACNT 1303 Introduction to Accounting I
This course focuses on analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis is on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll. (ACNT 1303 may not count for degree or certificate purposes if the student receives credit for ACCT 2301.) ACNT 1303 and 1304 will not satisfy the business administration transfer program degree accounting requirements. (3:3-0)

ACNT 1304 Introduction to Accounting II
This course focuses on accounting for merchandising, notes payable, notes receivable, valuation of receivables and equipment, and valuation of inventories in a manual and computerized environment. Prerequisite: ACNT 1303 (ACNT 1304 may not count for degree or certificate purposes if the student receives credit for ACCT 2301.) ACNT 1303 and 1304 will not satisfy the business administration transfer program degree accounting requirements. (3:3-0)
ACNT 1311 Introduction to Computerized Accounting
This course provides an 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 and spreadsheet applications. Typical areas covered include the general ledger, accounts payable, accounts receivable, and payroll. It is recommended that students have prior knowledge and/or experience in accounting. (3:3-0)

ACNT 1313 Computerized Accounting Application
This course makes use of the computer to develop and maintain accounting records and to process common business applications for managerial decision-making. Prerequisite: ACNT 1311 (3:3-0)

ACNT 1329 Payroll and Business Tax Accounting
This is a study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment. Prerequisite: Reading level 4 (3:3-0)

ACNT 1331 Federal Income Tax: Individual
This course provides basic instruction in the tax laws as currently implemented by the Internal Revenue Services and in tax preparation for the individual and sole proprietorship. Prerequisite: Reading level 4 (3:3-0)

ACNT 2303 Intermediate Accounting I
The focus of this course is critical analysis of generally accepted accounting principles, concepts, and theory underlying the preparation of financial statements. Emphasis is on current theory and practice. Prerequisite: ACCT 2301 (3:3-0)

ACNT 2304 Intermediate Accounting II
The focus of this course is in-depth analysis of generally accepted accounting principles underlying the preparation of financial statements, including comparative analysis and statement of cash flow. Prerequisite: ACCT 2301 (3:3-0)

ACNT 2309 Cost Accounting
This course focuses on budgeting, cost analysis, and cost control systems, using traditional and contemporary costing methods and theories in decision making. It includes a detailed study of manufacturing cost accounts; reports; job order costing; process costing; and an introduction to alternative costing methods such activity-based and just-in-time costing. Prerequisite: ACCT 2302 or equivalent (3:3-0)

ACNT 2366 Practicum-Accounting
This course offers 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, general and technical course of study. The guided external experiences may be paid or unpaid. The course may be repeated if topics and learning outcomes vary, but no more than three times for credit. Prerequisite: ACCT 2301 and 2302 or approval of department chair. (3:0-21)

ACNT 2367 Practicum - Accounting
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. (3:0-21)

AFSC 1201 Foundations of United States Air Force I
This course introduces the concept of war and the role the Air Force plays. Students will learn about the career opportunities available, benefits afforded an Air Force member, and develop productive life skills. Basic oral and written communication skills will be demonstrated. Course focus is on developing basic knowledge and comprehension of Air Force leadership dimensions, while gaining a big picture understanding of ROTC course, its purpose in the Air Force and its advantages for the student. (2:1-2)

AFSC 1202 Foundations of United States Air Force II
This course explores the basic verbal and written communication skills and an operational understanding of the Air Force core values. Students will learn the importance of managing diversity and the concepts and consequences of harassment. The basic concepts of Air Force leadership, as well as, the concept of effective team building will be developed. Case studies will provide a tangible context for learning the Soldier’s Creed and Warrior Ethos as they apply in the contemporary operating environment. (2:1-2)

AFSC 2201 The Evolution of USAF Air and Space Power I
This course covers key historical events and milestones in the development of air power as a primary instrument of United States national security. Students will learn core values and competencies of leaders in the United States Air Force and tenets of leadership and ethics. (2:1-2)
**AFSC 2202 The Evolution of USAF Air and Space Power II**
The course overviews the key terms and definitions used to describe air and space power. Students will know the milestone and historical events, leaders, and technological advancements which surround the evolution and employment of USAF air and space power. Basic verbal and written communication skills along with an operational understanding of Air Force Core Values and ethics will be demonstrated. (2:1-2)

**AGRI 1131 The Agricultural Industry**
This course is an overview of world agriculture, nature of the industry, resource conservation, and the American agricultural system, including production, distribution, and marketing. Prerequisite: Reading level 6 (1:1-0)

**AGRI 1309 Computer in Agriculture**
This course focuses on the use of computers in agricultural applications. Includes introduction to programming languages, word processing, electronic spreadsheets, and agricultural software. Prerequisite: Reading level 6 (3:3-0)

**AGRI 1315 Horticulture**
This course covers structure, growth and development of horticultural plants from a practical and scientific approach. Includes environment effects, basic principles of propagation, greenhouse and outdoor production, nutrition, pruning, chemical control of growth, pest control, and landscaping. Prerequisite: Reading level 6 (3:3-0)

**AGRI 1319 Introductory Animal Science**
This course covers scientific animal agriculture. Includes importance of livestock and meat industries; selection, reproduction, nutrition, management, and marketing of beef cattle, swine, sheep, goats, and horses. Prerequisite: Reading level 6 (3:2-2)

**AGRI 1407 Agronomy**
This course covers principles and practices in the development, production, and management of field crops including plant breeding, plant diseases, soils, insect control and weed control. Prerequisite: Reading level 6 (4:3-2)

**AGRI 2317 Introduction to Agricultural Economics**
This course covers the fundamental economic principles and their applications to the problems of the industry of agriculture. Prerequisite: Reading level 7, Writing level 7, Math level 7 (3:3-0)

**AGRI 2321 Livestock Evaluation I**
This course focuses on selection, evaluation, and classification of livestock and livestock products. Prerequisite: Reading level 7 (3:3-0)

**AIRP 1215 Private Flight**
This course is flight training to prepare the student for the completion of the Federal Aviation Administration private pilot certification process. Prerequisites: Reading level 7, Writing level 7, Math level 9. Federal Aviation Regulation (FAR) Part 141, Ground School Training or department chair approval. (Co-requisites AIRP 1301, AIRP 1307, and AIRP 1311) (2:1-4)

**AIRP 1301 Air Navigation**
Students receive instruction in visual flight navigation rules in the National Airspace System. Topics include sectional charts, flight computers, plotters, and navigation logs and publications. It qualifies as part of a program leading to Federal Aviation Administration certification. One of three Private Pilot Ground School courses. Prerequisite: Reading level 7 or department chair approval. (3:3-0)

**AIRP 1307 Aviation Meteorology**
This course provides in-depth coverage of meteorological phenomena affecting aircraft flight. Topics include basic concepts of aviation meteorology in the study of temperature, pressure, moisture, stability, clouds, air masses, fronts, thunderstorms, icing, and fog. It also includes analysis and use of weather data for flight planning. It qualifies as part of a program leading to FAA certification, and is one of three Private Pilot Ground School courses. Prerequisite: Reading level 7 or department chair approval. (3:3-0)

**AIRP 1311 Flight Theory**
This course provides instruction in basic flight information of the National Aerospace System. Topics include publications, regulations, aircraft systems, and performance. Qualifies as part of a program leading to Federal Aviation Administration certification and is one of three private pilot ground school courses. Prerequisite: Reading level 7 or department chair approval. (3:3-0)

**AIRP 1341 Advanced Air Navigation**
This course helps students develop advanced airplane systems and performance skills, including radio navigation and cross-country flight planning. Includes an introduction to instrument flight operations and navigation. This course may be used as part of a program leading to Federal Aviation Administration certification. Prerequisite: AIRP 1301, a Private Pilot Certificate, or department chair approval. (3:3-0)

**AIRP 1343 Aerodynamics**
This is a study of the general principles of the physical laws of flight. Topics include physical terms and the four forces of flight: lift, weight, thrust, and drag. Aircraft design, stability control, and high-speed flight characteristics are also included. Prerequisites: AIRP 1311, Private Pilot Certificate, Math level 7, or department chair approval. (3:3-0)
COURSE DESCRIPTIONS

AIRP 1451 Instrument Ground School
This is a study of basic instrument radio and navigation fundamentals used in instrument flight. Topics include a description and practical use of navigation systems and instruments, charts used for instrument flight, and Federal Aviation Administration regulations. It qualifies as part of a program leading to Federal Aviation Administration certification. Prerequisites: AIRP 1301, 1311, 1307, and 1215, Private Pilot Certificate, or department chair approval. (4:4-0)

AIRP 2236 Certified Flight Instructor-Airplane
This course covers flight and ground instruction required to qualify for the Federal Aviation Administration Certified Flight Instructor - Airplane certificate. Prerequisites: Commercial Pilot Certificate with Instrument Rating. Reading level 7, Writing level 7, Math level 9 and department chair approval. (2:1-4)

AIRP 2239 Commercial Flight (Commercial Pilot)
The flight instruction in this course is necessary to qualify for the Federal Aviation Administration Commercial Pilot Certificate. Instruction includes both dual and solo flight training to prepare the student to perform commercial pilot maneuvers. A total of 48 hours of instruction is provided, including 27 hours of dual flight, 11 hours of solo flight, 5 hours of flight simulator, and 5 hours of pre-flight and post-flight instruction and briefing. Prerequisite: Private Pilot Certificate, Reading level 7, Writing level 7, Math level 9, or department chair approval. (2:1-4)

AIRP 2242 Flight Instructor-Instrument Airplane
This course assists with Flight and ground instruction required to qualify for the Federal Aviation Administration Certified Flight Instructor-Instrument Airplane certificate. Prerequisites: Commercial Pilot Certificate with Instrument Rating. Reading level 7, Writing level 7, Math level 9 and department approval (2:1-4)

AIRP 2243 Flight Instructor-Multiengine Airplane
The flight instruction in this course is necessary to qualify for the Federal Aviation Administration Flight Instructor-Multiengine Airplane Rating. Includes combined ground and flight instruction and analysis of flight maneuvers. Prerequisites: Reading level 7, Writing level 7, Math level 9, Commercial Pilot Certificate with Instrument and Multiengine Rating and department chair approval. (2:1-4)

AIRP 2250 Instrument Flight (Instrument Pilot)
This course prepares students for completion of the Federal Aviation Administration Instrument Pilot Rating with mastery of all instrument flight procedures. Prerequisites: AIRP 1215 or a valid Private Pilot Certificate and aeronautical department chair approval. Prerequisite. Reading level 7, Writing level 7, Math level 9. Prerequisite or co-requisite: FAR Part 141 ground school training, or department chair approval. (AIRP 1451) (2:1-4)

AIRP 2251 Multi-Engine Flight
This course is preparation for the multiengine class rating which will be added to a current pilot certificate. It includes explanation and demonstration of all required Federal Aviation Administration normal and emergency operations and procedures. Prerequisites: Private Pilot Certificate with Instrument Rating. Reading level 7, Writing level 7, Math level 9 and department chair approval. (2:1-4)

AIRP 2331 Advanced Meteorology
This course prepares advanced aviation students to apply knowledge of varying meteorological factors (including weather hazards to flight) to flight. It teaches techniques for minimizing weather hazards and for using aviation weather services. Prerequisites: AIRP 1307, Private Pilot Certificate, or department chair approval. (3:3-0)

AIRP 2333 Aircraft Systems
This is a study of the general principles, operation, and application of pneumatic, hydraulic, electrical, fuel, environment, protection, and warning systems. Emphasis on subsystems and control systems. Prerequisite: AIRP 1311, Private Pilot Certificate, or department chair approval. (3:3-0)

AIRP 2337 Commercial Ground School
This is a study of advanced aviation topics that can be used for Federal Aviation Administration certification at the commercial pilot level. It includes preparation for the FAA Commercial Airplane written test. Prerequisite: AIRP 1451, or department chair approval. (3:3-0)

AIRP 2355 Propulsion Systems
This course provides in-depth coverage of aircraft engine theory and principles of operation of various types of aircraft engines, including reciprocating, turboprop, turbojet, and turbo fan. Topics include propellers, superchargers, engine accessories, control, and instrumentation. (3:3-0)

AIRP 2357 Turbine Aircraft Systems Ground School
This course provides instruction in the systems of specific turbine aircraft. Emphasis is on the "glass-cockpit," auxiliary power, aircraft systems, and the first officer's operational role. Prerequisites: AIRP 2333 and AIRP 2337, or department chair approval. (3:3-0)
ANTH 2301 Introduction to Physical Anthropology
The study of human origins and bio-cultural adaptations. Topics may include primatology, genetics, human variation, forensics, health, and ethics in the discipline. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

ANTH 2302 Introduction to Archaeology
The study of the human past through material remains. The course includes a discussion of methods and theories relevant to archeological inquiry. Topics may include the adoption of agriculture, response to environmental change, the emergence of complex societies, and ethics in the discipline. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

ANTH 2346 General Anthropology
The study of human beings, their antecedents, related primates, and their cultural behavior and institutions. Introduces the major subfields: physical and cultural anthropology, archeology, linguistics, their applications, and ethics in the discipline. Prerequisites: Reading level 6 and Writing level 6 (3:3-0)

ANTH 2351 Cultural Anthropology
The study of human cultures. Topics may include social organization, institutions, diversity, interactions between human groups, and ethics in the discipline. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

ARTC 1302 Digital Imaging I
This course teaches digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image acquisitions. Prerequisite: ARTC 1325 or ARTS 2348 (3:2-4)

ARTC 1317 Design Communication I
This is an introductory study of design development relating to graphic design terminology, tools, media, and layout and design concepts. Topics include integration of type, images, and other design elements, and developing computer skills in industry standard computer programs. Students will not receive credit for both ARTC 1317 and ARTS 2313. Prerequisite: ARTC 1325 or ARTS 2348 or concurrent enrollment with ARTC 1325 or ARTS 2348 with department chair approval (3:2-4)

ARTC 1321 Illustration
This is a study of illustration techniques in various media. Emphasis is on creative interpretation and disciplined draftsmanship for visual communication of ideas. Prerequisite: ARTC 1317 or ARTS 2313 or department chair approval (3:2-4)

ARTC 1325 Introduction to Computer Graphics
This is 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. Students will not receive credit for both ARTC 1325 and ARTS 2348. (3:2-4)

ARTC 1327 Typography
A study of letter forms and typographic concepts as elements of graphic communication. Emphasis is on developing a current, practical typographic knowledge based on industry standards. (3:2-4)

ARTC 1353 Computer Illustration
Students explore computer programs with applications to illustration and photo manipulation and file management for reproduction. Emphasis is on concept development in print for digital delivery. Prerequisite: ARTC 1321 or approval of department chair (3:2-4)

ARTC 2331 Illustration Concepts
This is an advanced study of different painting media utilizing both digital and traditional tools. Emphasis is on conceptualization and composition as they relate to “real world” assignments. Prerequisites: ARTC 1353 or approval of department chair (3:2-4)

ARTC 2335 Portfolio Development for Graphic Design
Students prepare a portfolio comprised of completed graphic design projects. Evaluation and demonstration of portfolio presentation methods based on the student’s specific area of study are explored. (3:2-4)
ARTC 2347 Design Communication II
This course is an advanced study of the design process and art direction. The emphasis is on form and content through the selection, creation, and integration of typographic, photographic, illustrative, and design elements. Students will not receive credit for both ARTC 2347 and ARTS 2314. Prerequisite: ARTC 1317 or ARTS 2313. (3:2-4)

ARTC 2366 Field Experience-Graphic Design, Commercial Art and Illustration
This course offers practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The plan relates the workplace training and experience to the student’s general and technical course of study. The guided external experiences may be paid or unpaid. May be taken for credit in conjunction with each degree or certificate earned. Prerequisites: ARTS 2314 or ARTC 2347 or approval of department chair (3:1-20)

ARTS 1301 Art Appreciation
This is a general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts. Prerequisite: Reading level 6 (3:3-0)

ARTS 1303 Art History I (Prehistoric to the 14th century)
This is a chronological analysis of the historical and cultural contexts of the visual arts from prehistoric times to the 14th century. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

ARTS 1304 Art History II (14th century to the present)
This is a chronological analysis of the historical and cultural contexts of the visual arts from the 14th century to the present day. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

ARTS 1311 Design I (2-dimensional)
This is an introduction to the fundamental terminology, concepts, theory, and application of two-dimensional design. (3:2-4)

ARTS 1312 Design II (3-dimensional)
This is an introduction to the fundamental terminology, concepts, theory, and application of three-dimensional design. Prerequisite: ARTS 1311 (3:2-4)

ARTS 1316 Drawing I
This is a foundation studio course exploring drawing with emphasis on descriptive, expressive and conceptual approaches. Students will learn to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will engage in critical analysis and begin to develop their understanding of drawing as a discipline. (3:2-4)

ARTS 1317 Drawing II
This is a studio course exploring drawing with continued emphasis on descriptive, expressive and conceptual approaches. Students will further develop the ability to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will employ critical analysis to broaden their understanding of drawing as a discipline. Prerequisite: ARTS 1316 (3:2-4)

ARTS 2311 Design III
This course covers elements and principles of art using two- and three-dimensional concepts. This in-depth study of current concerns and practices in the visual arts stresses individually directed studio work. Topics may include, but are not limited to design, drawing, painting, sculpture, ceramics, photography and design communication. Producing a transfer or job-oriented portfolio will be emphasized. Prerequisite: Department chair approval. (3:2-4)

ARTS 2313 Design Communications I
This is an introductory study of design development relating to graphic design technology, tools, media, and layout and design concepts. Topics include integration of type, images, and other design elements, and developing computer skills in industry standard computer programs. Students will not receive credit for both ARTS 2313 and ARTC 1317. Prerequisite: ARTC 1325 or ARTS 2348 or concurrent enrollment with ARTC 1325 or ARTS 2348 with department chair approval (3:2-4)

ARTS 2314 Design Communications II
This course offers general practice in commercial art and production. Students will not receive credit for both ARTS 2314 and ARTC 2347. Prerequisite: ARTC 1317 or ARTS 2313 (3:2-4)

ARTS 2316 Painting I
This course explores the potentials of painting media, with emphasis on color and composition. (3:2-4)

ARTS 2317 Painting II
This is a continuation of painting I with emphasis on individual expression. Prerequisite: ARTS 2316 or approval of department chair (3:2-4)
ARTS 2323 Life Drawing I
Life drawing I is a studio course emphasizing structure and action of the human figure. Prerequisite: ARTS 1316 (3:2-4)

ARTS 2324 Life Drawing II
This is a further investigation of drawing the human figure with emphasis on individual expression. Prerequisite: ARTS 2323 (3:2-4)

ARTS 2326 Sculpture I
This is an exploration of various sculptural approaches in a variety of media, including additive and subtractive techniques. (3:2-4)

ARTS 2327 Sculpture II
A continuation of sculpture I, this course emphasizes individual expression. Prerequisite: ARTS 2326 or approval of department chair (3:2-4)

ARTS 2333 Printmaking I
This is an introduction to printmaking, including monoprints, relief, intaglio, and serigraphy. (3:2-4)

ARTS 2334 Printmaking II
A continuation of printmaking I, this emphasizes individual expression. Prerequisite: ARTS 2333 or approval of department chair (3:2-4)

ARTS 2341 Art Metals I
This course offers the exploration of ideas using basic techniques in jewelry and metal construction. This is a beginning course in the design of metal art focusing on the implementation of basic processes and techniques associated with jewelry and metalsmithing. (3:2-4)

ARTS 2342 Art Metals II
This course offers the exploration of ideas using expanded techniques in jewelry and metal construction. This is an intermediate course in the design of metal art focusing on the continued implementation of processes and techniques associated with jewelry and metalsmithing. Prerequisite: ARTS 2341 (3:2-4)

ARTS 2346 Ceramics I
A studio course, this is an introduction to basic ceramic processes and an exploration of clay as an artistic medium, including mechanical (wheel-thrown) and hand-built techniques, and glazing and firing processes. (3:2-4)

ARTS 2347 Ceramics II
A studio course, this continuation of ARTS 2346 explores clay as an artistic medium, concentrating on combinations of mechanical and hand-built techniques. Prerequisite: ARTS 2346 (3:2-4)

ARTS 2348 Digital Art I
This studio art course explores the potential of computer hardware and software medium for their visual, conceptual, and practical uses in visual arts. Students will not receive credit for both ARTC 1325 and ARTS 2348. (3:2-4)

ARTS 2349 Digital Art II
This studio art course expands upon Digital Art I (ARTS 2348). This course stresses the use of industry standard software applications such as Adobe Photoshop. Course will emphasize both creative and technical elements of image creation, image acquisition, file formats, output devices, and color systems. Prerequisite: Reading level 6, Writing level 6 (3:2-4)

ARTS 2356 Fine Arts Photography I
This is a beginning course in the taking, developing, and printing of photographs. Students receive instruction in photographic principles and are given assignments to complete in the laboratory periods or outside class. The College furnishes darkroom facilities and a limited number of cameras. Students will not receive credit for both ARTS 2356 and COMM 1318. (3:2-4)

ARTS 2357 Fine Arts Photography II
This course offers continued development of techniques, with emphasis on content and composition of photographs, including a variety of professional and technical areas. Students will not receive credit for both ARTS 2357 and COMM 1319. Prerequisite: COMM 1318 or ARTS 2356 or approval of department chair (3:2-4)

ARTS 2366 Watercolor I
This course introduces the basic techniques and materials of transparent and opaque watercolors. (3:2-4)

ARTS 2367 Watercolor II
A continuation of watercolor I, this course places emphasis on individual expression. Prerequisite: ARTS 2366 or approval of department chair (3:2-4)

ARTS 2389 Academic Cooperative-Art
This course is an instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the student will set specific goals and objectives in the study of studio art and/or art history. Prerequisites: ARTS 2348 and ARTS 2349, Reading level 6, Writing level 6 (3:1-8)
ARTV 1303 Basic Animation
This course provides an examination of animation concepts, principles, and storyboard for basic production. It emphasizes creating movement and expression utilizing traditionally or digitally generated image sequences. Prerequisite: ARTC 1325 or ARTS 2348 (3:2-4)

ARTV 1341 3-D Animation I
This course is an intermediate level 3-D course introducing animation tools and techniques used to create movement. It emphasizes using the principles of animation. Prerequisite: ARTV 1345 or approval of department chair (3:2-4)

ARTV 1345 3-D Modeling and Rendering
The student will receive instruction in the techniques of three-dimensional (3-D) modeling utilizing industry standard software. This includes the creation and modification of 3-D geometric shapes, use of a variety of rendering techniques, camera, light sources, texture, and surface mapping. (3:2-4)

ARTV 1351 Digital Video
This is a course in producing and editing video and sound for multimedia or web productions. It emphasizes the capture, editing, and outputting of video using a desktop digital video workstation. Prerequisite: ARTC 1325 or ARTS 2348 (3:2-4)

ARTV 2301 2-D Animation I
This course specializes in skill development in the use of software to develop storyboards and two-dimensional animation including creating, importing, and sequencing media elements to create multimedia presentations. Emphasis will be on conceptualization, creativity, and visual aesthetics. Prerequisite: ARTV 1303 (3:2-4)

ARTV 2341 Advanced Digital Video
Advanced digital video consists of techniques for post-production. Emphasizes integration of special effects and animation for film, video, and the Internet. Exploration of new and emerging compression and video streaming technologies. Prerequisite: ARTV 1351 or approval of department chair (3:2-4)

ARTV 2351 3-D Animation II
This course is an advanced level 3-D course utilizing animation tools and techniques used to develop movement. The emphasis is on advanced animation techniques. Prerequisite: ARTV 1341 (3:2-4)

AUMT 1213 Theory of Automotive Suspension and Steering Systems
This course is a study of automotive suspension and steering systems including the theory of wheel and tire construction and alignment angles and procedures. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9 (2:2-0)

AUMT 1241 Theory of Automotive Climate Control Systems
This course is the study of the theory of automotive climate control systems. Emphasis on the basic refrigeration cycle and system malfunctions. Includes manual and electronic climate control systems. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9 (2:2-0)

AUMT 1253 Theory of Automotive Electrical Systems
This is a course in automotive electrical systems including operational theory, testing and diagnosis of batteries, charging and starting systems, and electrical accessories. Includes use of electrical schematic diagrams and service. Prerequisites: Reading level 7, Writing level 7, Math level 9 (2:2-0)

AUMT 1257 Theory of Automotive Brake Systems
This course is the study of the theory and principles related to the design, operation, and servicing of automotive braking systems. Includes disc and drum-type brakes, hydraulic systems, power assist components, anti-lock brake systems, and diagnosis and reconditioning procedures. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9 (2:2-0)

AUMT 1271 Manufacturers Maintenance and Pre-Delivery
This course provides an overview of automotive industry specific automotive quick services and new/used vehicle preparation. Topics include vehicle inspections, preparing estimates, changing fluids and filters, proper hazardous waste disposal, minor electrical repairs and road-testing techniques using manufacturers information systems, forms, and maintenance/repair procedures. Students will learn how to inspect and evaluate vehicle systems to determine if advanced levels of repairs are needed. They also learn how to identify and operate necessary equipment and tools. May be taught manufacturer specific. Reading level 7, Writing level 7, Math level 9 (2:1-3)

AUMT 1272 Automotive Maintenance and Repair
This course provides an overview of manufacturers specific automotive quick services and new/used vehicle preparation. Topics include vehicle inspections, preparing estimates, changing fluids and filters, proper hazardous waste disposal, minor electrical repairs and road-testing techniques using manufacturers information systems, forms, and maintenance/repair procedures. Students will learn how to inspect and evaluate vehicle systems to determine if advanced levels of repairs are needed. They also learn how to identify and operate necessary equipment and tools. Prerequisites: Reading level 7, Writing level 7, Math level 9 (2:1-3)
AUMT 1307 Automotive Electrical Systems Lab
This course is an overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of, charging and starting systems, and electrical accessories. Emphasis on electrical principles, schematic diagrams, and service manuals. May be taught manufacturer specific. Co-requisite: AUMT 1253. Prerequisites: Reading level 7, Writing level 6, Math level 6 (3:1-5)

AUMT 1310 Automotive Brake Systems Lab
This course is the study of the operation and repair of drum/disc type brake systems. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught with manufacturer specific instructions. Prerequisites: AUMT 2421, Reading level 7, Writing level 6, Math level 6. Co-requisite: AUMT 1257 (3:1-5)

AUMT 1316 Automotive Suspension and Steering
This course is the study of the diagnosis and repair of automotive suspension and steering systems including electronically controlled systems. Includes component repair, alignment procedures, and tire and wheel service. May be taught manufacturer specific. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9 (3:2-4)

AUMT 1319 Automotive Engine Repair
This course is the study of the fundamentals of engine operation, diagnosis and repair. Emphasis on identification, inspection, measurements, dis-assembly, repair, and reassembly of the engine. May be taught manufacturer specific. Prerequisites: Reading level 7, Writing level 7, Math level 9 (3:2-4)

AUMT 1345 Automotive Climate Control Systems
This course is a study of the diagnosis and repair of manual/electronic climate control systems; includes the refrigeration cycle and EPA guidelines for refrigerant handling. May be taught manufacturer specific. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9 (3:2-4)

AUMT 1407 Automotive Electrical Systems
This course is an overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of, charging and starting systems, and electrical accessories. Emphasis on electrical principles, schematic diagrams, and service manuals. May be taught manufacturer specific. Prerequisites: Reading level 7, Writing level 7, Math level 9 (4:2-6)

AUMT 1410 Automotive Brake Systems
This course is the study of the operation and repair of drum/disc type brake systems. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught with manufacturer specific instructions. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9 (4:2-6)

AUMT 1416 Automotive Suspension and Steering
This course is the study of the diagnosis and repair of automotive suspension and steering systems including electronically controlled systems. Includes component repair, alignment procedures, and tire and wheel service. May be taught manufacturer specific. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9 (4:2-6)

AUMT 1419 Automotive Engine Repair
This course is the study of the fundamentals of engine operation, diagnosis and repair. Emphasis on identification, inspection, measurements, dis-assembly, repair, and reassembly of the engine. May be taught manufacturer specific. Prerequisites: Reading level 7, Writing level 7, Math level 9 (4:2-6)

AUMT 1445 Automotive Climate Control Systems
This course is a study of the diagnosis and repair of manual/electronic climate control systems; includes the refrigeration cycle and EPA guidelines for refrigerant handling. May be taught manufacturer specific. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9 (4:2-6)

AUMT 1471 Manufacturers Maintenance and Pre-Delivery
This course provides an overview of manufacturers specific automotive quick services and new/used vehicle preparation. Topics include vehicle inspections, preparing estimates, changing fluids and filters, proper hazardous waste disposal, minor electrical repairs and road-testing techniques using manufacturers information systems, forms, and maintenance/repair procedures. Students will learn how to inspect and evaluate vehicle systems to determine if advanced levels of repairs are needed. They also learn how to identify and operate necessary equipment and tools. Prerequisites: Reading level 7, Writing level 7, Math level 9 (4:2-6)

AUMT 2188 Internship - Automotive Technology
This course is a work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisites: Reading level 7, Writing level 7, Math level 9 and department chair/program coordinator approval. (1:0-6)

AUMT 2205 Theory of Automotive Engine Repair
This course is the study of the fundamentals of engine operation and diagnosis including lubrication and cooling systems. Emphasis on identification of components, measurements, inspections, and repair methods. Prerequisites: AUMT 2331 and 2317, Reading level 7, Writing level 7, Math level 9 (2:2-0)
AUMT 2209 Theory of Automotive Drive Train and Axles
This course is a study of automotive clutches, clutch operation devices, manual transmissions/transaxles, and differentials. Emphasis on theory of transmission/transaxle and drive line components. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9 (2:2-0)

AUMT 2215 Theory of Engine Performance Analysis I
This course is a study of the 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. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9 (2:2-0)

AUMT 2223 Theory of Automotive Automatic Transmission and Transaxle
This course is the study of the theory of operation, hydraulic principles, and electronic circuits of modern automatic transmissions and transaxles. Discussion of diagnosing and repair techniques. Prerequisites: AUMT 2209 and 2313, Reading level 7, Writing level 7, Math level 9 (2:2-0)

AUMT 2231 Theory of Automotive Engine Performance Analysis II
This course is a study of emission systems, computerized engine performance, and advanced ignition and fuel systems, including advanced engine performance diagnostic equipment. Prerequisites: AUMT 2215, Reading level 7, Writing level 7, Math level 9 (2:2-0)

AUMT 2288 Internship - Automotive Technology
This course is a work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisites: Reading level 7, Writing level 7, Math level 9 and department chair/program coordinator approval. (2:0-12)

AUMT 2313 Manual Drivetrain and Axles
This is a study of automotive clutches, clutch operation devices, manual transmissions/transaxles, and differentials with emphasis on diagnosis and repair. May be taught with manufacturer specific instructions. Prerequisites: Reading level 7, Writing level 7, Math level 9 (3:2-4)

AUMT 2317 Automotive Engine Performance Analysis I Lab
This course is the study of the theory, operation, diagnosis of driveability concerns, and repair of ignition, and fuel delivery systems. Includes use of current engine performance diagnostic equipment. May be taught with manufacturer specific instructions. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9. Co-requisite: AUMT 2215 (3:1-5)

AUMT 2321 Automotive Electrical Diagnosis and Repair
This is a course in repair of automotive electrical subsystems, lighting, instrumentation, and accessories. Emphasis on accurate diagnosis and proper repair methods using various troubleshooting skills and techniques. This course may be taught with manufacturer-specific focus. Prerequisites: Reading level 7, Writing level 7, Math level 9 (3:2-4)

AUMT 2325 Automotive Automatic Transmission and Transaxles Lab
This course is a study of the operation, hydraulic circuits and electronic controls of modern automatic transmissions/transaxles. Includes diagnosis, disassembly, and assembly procedures with emphasis on the use of special tools and repair techniques. May be taught manufacturer specific. Prerequisites: AUMT 2209 and 2313, Reading level 7, Writing level 7, Math level 9. Co-requisite: AUMT 2223 (3:1-5)

AUMT 2334 Automotive Engine Performance Analysis II Lab
This course is the study of the diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems. Includes use of advanced engine performance diagnostic equipment. May be taught manufacturer specific. Prerequisites: AUMT 2215 and 2317, Reading level 7, Writing level 7, Math level 9. Co-requisite: AUMT 2231 (3:1-5)

AUMT 2388 Internship - Automotive Technology
This course is a work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisites: Reading level 7, Writing level 7, Math level 9 and department chair/program coordinator approval. (3:0-15)

AUMT 2413 Manual Drivetrain and Axles
This is a study of automotive clutches, clutch operation devices, manual transmissions/transaxles, and differentials with emphasis on diagnosis and repair. May be taught with manufacturer specific instructions. Prerequisites: Reading level 7, Writing level 7, Math level 9 (4:2-6)

AUMT 2417 Automotive Engine Performance Analysis I
This course is the study of the theory, operation, diagnosis of driveability concerns, and repair of ignition, and fuel delivery systems. Includes use of current engine performance diagnostic equipment. May be taught with manufacturer specific instructions. Prerequisites: AUMT 2421, Reading level 7, Writing level 7, Math level 9 (4:2-6)
AUMT 2421 Automotive Electrical Diagnosis and Repair
This is a course in repair of automotive electrical subsystems, lighting, instrumentation, and accessories. Emphasis on accurate diagnosis and proper repair methods using various troubleshooting skills and techniques. This course may be taught with manufacturer-specific focus. Reading level 7, Writing level 7, Math level 9 (4:2-6)

AUMT 2425 Automotive Automatic Transmission and Transaxles
This course is a study of the operation, hydraulic circuits and electronic controls of modern automatic transmissions/transaxles. Includes diagnosis, disassembly, and assembly procedures with emphasis on the use of special tools and repair techniques. May be taught manufacturer specific. Prerequisites: Reading level 7, Writing level 7, Math level 9 (4:2-6)

AUMT 2434 Automotive Engine Performance Analysis II
This course is the study of the diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems. Includes use of advanced engine performance diagnostic equipment. May be taught manufacturer specific. Prerequisites: Reading level 7, Writing level 7, Math level 9 (4:2-6)

AVIM 1301 Introduction to Aviation Management
An introduction to small aviation business management, this course emphasizes financial marketing, human resources, and administrative and information systems essential for successful business operations. Prerequisite: department approval (3:3-0)

AVIM 2280 Cooperative Education-Aviation/Airway Management and Operations
This course covers 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. (2:1-8)

AVIM 2331 Airline Management
This is an examination of the organization, operation, and management of airlines. Topics include financing, aircraft selection, route feasibility studies, load factors, and marketing. (3:3-0)

AVIM 2335 Airport Management
This is a study of the major functions of airport management, including facilities and services, organization, human resources, maintenance, planning and zoning, operations, revenues and expenses, public relations, ecology, and safety. (3:3-0)

AVIM 2337 Aviation Law
This course is a study of domestic and international aviation law including the historical development of aviation law, with in-depth coverage of constitutional, criminal, civil, common, and international law as related to aviation activities. (3:3-0)

AVIM 2339 Aviation Marketing
This is a study of significance and functions of airline marketing, including market research, sales, advertising and promotion, traffic demand analysis, and price determination theory. (3:3-0)

BCIS 1305 Business Computer Applications
Students will study computer terminology, hardware, and software related to the business environment. The focus of this course is on business productivity software applications and professional behavior in computing, including word processing (as needed), spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet. (3:3-1)

BIOL 1106 Biology for Science Majors I (lab)
In this lab course, the fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. A student may not use both BIOL 1306 & 1106 and 1308 & 1108 to satisfy the core. Prerequisite: Reading level 7; co-requisite: BIOL 1306 (1:0-3)

BIOL 1107 Biology for Science Majors II (lab)
In this lab course, the diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. A student may not use both BIOL 1307 & 1107 and 1309 & 1109 to satisfy the core. Prerequisite: Reading level 7; co-requisite BIOL 1307 (1:0-3)

BIOL 1108 Biology for Non-Science Majors I (lab)
This lab course provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. THIS COURSE IS NOT INTENDED FOR SCIENCE MAJORS. A student may not use both BIOL 1306 & 1106 and 1308 & 1108 to satisfy the core. Prerequisite: Reading level 7; co-requisite: BIOL 1308 (1:0-3)
COURSE DESCRIPTIONS

**BIOL 1109 Biology for Non-Science Majors II (lab)**
This lab course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. THIS COURSE IS NOT INTENDED FOR SCIENCE MAJORS. A student may not use both BIOL 1307 & 1107 and 1309 & 1109 to satisfy the core. Prerequisite: Reading level 7; co-requisite: BIOL 1309 (1:0-3)

**BIOL 1111 General Botany (lab)**
This is a lab course in the fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution and phylogeny of major plant groups, algae, and fungi. (This course is intended for science majors.) Recommended prerequisite: MATH 1314 - Successful completion of College Algebra is recommended. Prerequisite: Reading level 7; co-requisite: BIOL 1311 (1:0-3)

**BIOL 1113 General Zoology (lab)**
This is a lab course in the fundamental biological concepts relevant to animals including systematics, evolution, structure, function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny and ecology. (This course is intended for science majors.) Recommended prerequisite: MATH 1314 - Successful completion of College Algebra is recommended. Prerequisite: Reading level 7; co-requisite: BIOL 1313 (1:0-3)

**BIOL 1306 Biology for Science Majors I (lecture)**
In this lecture course, the fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. A student may not use both BIOL 1306 & 1106 and 1308 & 1108 to satisfy the core. Prerequisite: Reading level 7; co-requisite: BIOL 1106 (3:3-0)

**BIOL 1307 Biology for Science Majors II (lecture)**
In this lecture course, the diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. A student may not use both BIOL 1307 & 1107 and 1309 & 1109 to satisfy the core. Prerequisite: Reading level 7; co-requisite: BIOL 1107 (3:3-0)

**BIOL 1308 Biology for Non-Science Majors I (lecture)**
This lecture course provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. THIS COURSE IS NOT INTENDED FOR SCIENCE MAJORS. A student may not use both BIOL 1306 & 1106 and 1308 & 1108 to satisfy the core. Prerequisite: Reading level 7; co-requisite: BIOL 1108 (3:3-0)

**BIOL 1309 Biology for Non-Science Majors II (lecture)**
This lecture course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. THIS COURSE IS NOT INTENDED FOR SCIENCE MAJORS. A student may not use both BIOL 1307 & 1107 and 1309 & 1109 to satisfy the core. Prerequisite: Reading level 7; co-requisite: BIOL 1109 (3:3-0)

**BIOL 1311 General Botany (lecture)**
This is a lecture course in the fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution and phylogeny of major plant groups, algae, and fungi. (This course is intended for science majors.) Recommended prerequisite: MATH 1314 - Successful completion of College Algebra is recommended. Prerequisite: Reading level 7; co-requisite: BIOL 1111 (3:3-0)

**BIOL 1313 General Zoology (lecture)**
This is a lecture course in the fundamental biological concepts relevant to animals including systematics, evolution, structure, function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny and ecology. (This course is intended for science majors.) Recommended prerequisite: MATH 1314 - Successful completion of College Algebra is recommended. Prerequisite: Reading level 7; co-requisite: BIOL 1113 (3:3-0)

**BIOL 1314 Introduction to Biotechnology**
This course is an overview of classical genetics, DNA structure, the flow of genetic information, DNA replication, gene transcription, and protein translation. Principles of major molecular biology and genetic engineering techniques are covered, including restriction enzymes and their uses, major types of cloning vectors, construction of libraries, Southern and Northern blotting, hybridization, PCR, and DNA typing. The course also covers applications of these techniques in human health and welfare, medicine, agriculture and the environment. Introduction to the human genome project, gene therapy, molecular diagnostics, forensics, creation and uses of transgenic plants and animal and animal cloning and of the ethical, legal, and social issues and scientific problems associated with these technologies. Relevant practical exercises in the above areas. Prerequisites: Reading level 7, Writing level 7, Math level 7 (4:3-3)
BIOL 2101 Human Anatomy and Physiology I (lab)
The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses. BIOL 1306/1106 is highly recommended for success in BIOL 2101, but it is not required. Prerequisite: Reading level 7; co-requisite: BIOL 2301 (1:0-3)

BIOL 2102 Human Anatomy and Physiology II (lab)
The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Prerequisites: BIOL 2301/2101 (final grade of C or better recommended), and Reading level 7; co-requisite: BIOL 2302 (1:0-3)

BIOL 2106 Environmental Biology (lab)
The lab course is designed to study human interaction and its effects upon plant and animal communities, with a focus on conservation, pollution, energy, sustainability, and other contemporary ecological problems. It includes a general study of ecological concepts, an introduction to natural resources, the study of the biotic and abiotic interrelationships and the energy transfer through food chains and food webs. This course introduces biological and chemical principles as they relate to the environment. It also introduces laboratory and field approaches to the study of the environment. A student may not receive credit for both BIOL 2306/2106 and BIOL 2406. Prerequisites: Reading level 7, BIOL 1306/1106; 1307/1107; 1311/1111; or 1313/1113; co-requisite: BIOL 2306 (1:0-3)

BIOL 2116 Principles of Genetics: Heredity (lab)
This lab course is a study of the principles of molecular and classical genetics. May include population genetics and genetic engineering. Prerequisites: BIOL 1306/1106 and 1307/1107, or BIOL 1311/1111 and 1313/1113, or approval of department chair, and Reading level 7; co-requisite: BIOL 2316 (1:0-3)

BIOL 2120 Microbiology for Health Science Majors (lab)
This lab course covers basics of culture and identification of bacteria and microbial ecology. This course is primarily directed at pre-nursing and other pre-allied health majors and covers basics of microbiology. Emphasis is on medical microbiology, infectious diseases, and public health. (A student may not receive credit for both BIOL 2320/2120 and BIOL 2321/2121.) Prerequisites: BIOL 2301/2101 or 2302/2102 (recommended to be met with a C or better) or approval by department chair; and Reading level 7; co-requisite: BIOL 2320 (1:0-3)

BIOL 2121 Microbiology for Science Majors (lab)
This lab course focuses on the morphology, physiology, and taxonomy of microorganisms. It also covers the relation of man to microorganisms in agriculture, industry, sanitation, and disease. (A student may not receive credit for both BIOL 2320/2120 and BIOL 2321/2121.) Prerequisites: BIOL 1306/1106 and BIOL 1307/1107, or BIOL 1311/1111 and 1313/1113, CHEM 1311/1111 and 1312/1112, and sophomore standing; Reading level 7; co-requisite: BIOL 2321. Some prerequisites may be waived with permission of department chair. (1:0-3)

BIOL 2301 Human Anatomy and Physiology I (lecture)
Anatomy and Physiology I is the first part of a two course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. BIOL 1306/1106 is highly recommended for success in BIOL 2301, but it is not required. Prerequisite: Reading level 7; co-requisite: BIOL 2101 (3:3-0)

BIOL 2302 Human Anatomy and Physiology II (lecture)
Anatomy and Physiology II is the second part of a two-course sequence. It is a study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. Including the digestive, urinary, reproductive, respiratory, and circulatory systems. Prerequisites: BIOL 2301/2101 (recommended with a final grade of C or better), and Reading level 7; co-requisite: BIOL 2102 (3:3-0)

BIOL 2305 Pathophysiology
Pathophysiology is a three-credit lecture course appropriate for students preparing for a nursing career or as an elective for a biology major. This is a specialized study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems as they relate to the study of human disease. Objectives include a study of general physiological factors involved in the disease process as well as pathology affecting different human systems. Prerequisites: BIOL 2301/2101 or BIOL 2302/2102 or BIOL 1306/1106 and BIOL 1307/1107(formerly BIOL 2401 or BIOL 2402 or BIOL 1406 and BIOL 1407) (3:3-0)
BIOL 2306 Environmental Biology (lecture)
The lecture course is designed to study human interaction and its effects upon plant and animal communities, with a focus on conservation, pollution, energy, sustainability, and other contemporary ecological problems. It includes a general study of ecological concepts, an introduction to natural resources, the study of the biotic and abiotic interrelationships and the energy transfer through food chains and food webs. This course introduces biological and chemical principles as they relate to the environment. It also introduces laboratory and field approaches to the study of the environment. A student may not receive credit for both BIOL 2306/2106 and BIOL 2406. Prerequisites: Reading level 7; BIOL 1306/1106; 1307/1107; 1311/1111; or 1313/1113; co-requisite: BIOL 2106 (3:3-0)

BIOL 2316 Principles of Genetics (Heredity) (lecture)
This lecture course is a study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering. Prerequisites: BIOL 1306/1106 and 1307/1107, or BIOL 1311/1111 and 1313/1113 or approval of department chair, and Reading level 7; co-requisite: BIOL 2116 (3:3-0)

BIOL 2320 Microbiology for Health Science Majors (lecture)
This lecture course covers basic microbiology and immunology and is primarily directed at pre-nursing, pre-allied health, and non-science majors. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms and acellular agents in the biosphere, and their roles in human and animal diseases. Major topics include bacterial structure as well as growth, physiology, genetics, and biochemistry of microorganisms. Emphasis is on medical microbiology, infectious diseases, and public health. (A student may not receive credit for both BIOL 2320/2120 and BIOL 2321/2121.) Prerequisites: BIOL 2301/2101 or 2302/2102 (recommended to be met with a C or better) or approval by department chair, and Reading level 7; co-requisite: BIOL 2120 (3:3-0)

BIOL 2321 Microbiology for Science Majors (lecture)
This course focuses on the morphology, physiology, and taxonomy of microorganisms. It also covers the relation of man to microorganisms in agriculture, industry, sanitation, and disease. (A student may not receive credit for both BIOL 2320/2120 and BIOL 2321/2121.) Prerequisites: BIOL 1306/1106 and BIOL 1307/1107 or BIOL 1311/1111 and 1313/1113, CHEM 1311/1111 and 1312/1112, and sophomore standing. Reading level 7. Some prerequisites may be waived with permission of department chair. Co-requisite: BIOL 2121 (3:3-0)

BIOL 2389 Academic Cooperative
This is an instructional program designed to integrate on-campus study with practical hands-on work experience in the biological sciences/life sciences. In conjunction with class seminars, the individual student will set specific goals and objectives of study of living organisms and their systems. Prerequisite: Eight hours of biology and/or environment science; Reading level 7, Writing level 7, Math level 7 (3:1-8)

BIOL 2404 Introduction to Anatomy and Physiology
This course is a study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized. Program Note: This course is designed specifically for non-nursing allied health programs - medical imaging, respiratory care, and surgical technology programs. Students seeking a baccalaureate nursing degree must take BIOL 2301/2101 and BIOL 2302/2102 (formerly BIOL 2401 and 2402). Prerequisite: Reading level 7 (4:3-3)

BIOM 1309 Applied Biomedical Equipment Technology
This course is an introduction to biomedical instrumentation as related to anatomy and physiology. Includes medical devices for monitoring, diagnosis, and treatment of anatomical systems (3:2-2)

BIOM 1315 Medical Equipment Networks
This course covers the identification of basic principles of medical equipment networking including hardware, software, and connectivity issues of medical equipment in healthcare facilities. Prerequisite: BIOM 1309 (3:2-2)

BIOM 1341 Medical Circuits Troubleshooting
This course covers development of skills in troubleshooting of medical electronic circuits and utilization of test equipment. Prerequisite: BIOM 1309 (3:2-2)

BIOM 1350 Diagnostic Ultrasound Imaging Systems
This course covers diagnostic ultrasound imaging systems including basic systems troubleshooting and problem solving. Prerequisite: BIOM 1309 (3:2-4)

BIOM 1355 Medical Electronic Applications
This course covers the presentation of sensors, transducers, and supporting circuits used in medical instrumentation devices. Prerequisite: BIOM 1309 (3:2-2)
COURSE DESCRIPTIONS

BIOM 2301 Safety in Health Care Facilities
This course is a study of codes, standards and management principles related to biomedical instrumentation emphasizing application of safety test equipment, preventive maintenance procedures, and documentation of work performed. Prerequisite: BIOM 1309 (3:3-1)

BIOM 2311 General Medical Equipment I
This course is a study in analysis of selected current paths from a larger schematic including discussion of equipment and disassembly and reassembly of equipment. Prerequisite: BIOM 1309 (3:2-3)

BIOM 2315 Physiological Instruments I
This course is the theory of operation, circuit analysis, and troubleshooting physiological instruments. Prerequisite: BIOM 1309 (3:2-2)

BIOM 2319 Fundamentals of X-Ray and Medical Imaging Systems
This course is a study in radiation theory and safety hazards, fundamental circuits, and application of X-ray systems including circuit analysis and troubleshooting. Prerequisite: BIOM 1309 (3:2-3)

BIOM 2343 General Medical Equipment II
This course covers the theory and principles of operation of a variety of basic electro-mechanical equipment with emphasis on repair and service of actual medical equipment. Prerequisite: BIOM 2311 (3:2-3)

BIOM 2389 Internship - Biomedical Technology/Technician
This course is a work-based training experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisites: BIOM 1309, 1315, 1341, 1355, and 2311. (3:0-18)

BMGT 1301 Supervision
This study of the role of the supervisor examines managerial functions as applied to leadership, counseling, motivation, and human skills. Prerequisite: Reading level 4 (3:3-0)

BMGT 1309 Information and Project Management
This course teaches the fundamentals of critical path methods for planning and controlling projects. Includes time/cost tradeoffs, resource utilization, stochastic considerations, task determination, time management, scheduling management, status reports, budget management, customer service, professional attitude, and project supervision. (3:3-0)

BMGT 1313 Principles of Purchasing
This course focuses on the purchasing process as it is related to such topics as inventory control, price determination, vendor selection, supply chain management, negotiation techniques, and ethical issues in purchasing. Prerequisite: Reading level 4 (3:3-0)

BMGT 1327 Principles of Management
This course focuses on the concepts, terminology, principles, theory, and issues relevant to management in organizations. Prerequisite: Reading level 4 (3:3-0)

BMGT 1331 Production and Operations Management
This course teaches fundamentals of the various techniques used in the practice of production and operations management, including location, design, and resource allocation. Prerequisite: Reading level 4 (3:3-0)

BMGT 1341 Business Ethics
This course offers discussion of ethical issues, the development of a moral frame of reference, and the need for an awareness of social responsibility in management practices and business activities. It includes ethical corporate responsibility. (3:3-0)

BMGT 2309 Leadership
This course explores the concepts and styles of leadership, their relation to management, and their impact on the organization. It prepares the student with leadership and communication skills necessary to motivate and identify appropriate principles of leadership in individual, group, and organizational settings. Prerequisite: Reading level 4 (3:3-0)

BMGT 2368 Practicum (or Field Experience)
This course offers practical training and experience in the workplace supported by an individualized learning plan developed and documented by the employer, College, and student. This allows the student to apply classroom theories, concepts, and skills in a workplace environment. The student must be working 20 hours per week in a paid or unpaid position. Prerequisites: Six hours of Business Management courses or approval of the program director, and Reading level 4 (3:0-21)

BMGT 2369 Practicum - Business Administration and Management
This course offers practical, general workplace training and experience supported by an individualized learning plan developed by the employer, college, and students. Prerequisites: Six hours of Business Management courses or approval of the program director. Reading level 4 (3:0-21)
BUSG 1341 Small Business Financing
This course focuses on understanding the financial structure of a small business. Topics include: business financing, budgeting, record keeping, taxation, insurance, and banking. Prerequisite: Reading level 4 (3:3-0)

BUSG 2309 Small Business Management
This is a course on how to start and operate, and grow a small business. Topics include facts about a small business, essential management skills, how to prepare a business plan, accounting, financial needs, staffing, marketing strategies, and legal issues. Prerequisite: Reading level 4 (3:3-0)

BUSG 2317 Business Law/Commercial
This course explores the relationships of law and business as they relate to commercial transactions. Prerequisite: Reading level 7 (3:3-0)

BUSI 1301 Business Principles
This course provides a survey of economic systems, forms of business ownership, and considerations for running a business. Students will learn various aspects of business, management, and leadership functions; organizational considerations; and decision-making processes. Financial topics are introduced, including accounting, money and banking, and securities markets. Also included are discussions of business challenges in the legal and regulatory environment, business ethics, social responsibility, and international business. Emphasized is the dynamic role of business in everyday life. Prerequisite: Reading level 6 (3:3-0)

BUSI 2301 Business Law
The course provides the student with foundational information about the U.S. legal system and dispute resolution, and their impact on business. The major content areas will include general principles of law, the relationship of business and the U.S. Constitution, state and federal legal systems, the relationship between law and ethics, contracts, sales, torts, agency law, intellectual property, and business law in the global context. Prerequisite: High school coursework in U.S. history and government, or equivalent. Prerequisite: Reading level 7 (3:3-0)

BUSI 2304 Business Communications
This is a study of the practical principles of word usage, language structure, and writing mechanics. Detailed attention is given to report writing and to the construction of letters concerned with sales, credits, collections, inquiries, adjustments, orders, recommendations, and applications for employment. Prerequisite: Reading level 4 (3:3-0)

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CBFM 1307 Boiler Operation
This course covers basic boiler operation with emphasis on high pressure and low pressure systems. Prerequisites: Reading level 7, Writing level 7, Math level 7 (3:3-1)

CDEC 1319 Child Guidance
This is an exploration of guidance strategies for promoting prosocial behaviors with individual and groups of children. Emphasis on positive guidance principles and techniques, family involvement, and cultural influences. (3:3-1)

CDEC 1321 The Infant and Toddler
This course is a study of appropriate infant and toddler programs (birth to age 3), including an overview of development, quality routines, appropriate environments, materials and activities, and teaching/guidance techniques. (3:3-0)

CDEC 1323 Observation and Assessment
This course is a study of observation skills, assessment techniques, and documentation of children's development. (3:3-1)

CDEC 1356 Emergent Literacy for Early Childhood
This course explores the principles, methods, and materials for teaching young children language and literacy through a play-based, integrated curriculum. (3:3-0)

CDEC 1359 Children With Special Needs
This course is a survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, intervention strategies, available resources, referral processes, the advocacy role and legislative issues. (3:3-0)

CDEC 1413 Curriculum Resources for Early Childhood Programs
This course is a study of the fundamentals of developmentally appropriate curriculum design and implementation in early care and education programs for children birth through age eight. (4:3-3)

CDEC 1417 Child Development Associate Training I
This course is based on the requirements for the Child Development Associate credential (CDA). Topics include CDA overview, observation skills, and child growth and development overview. The four functional areas of study are creative, cognitive, physical, and communication. (4:3-4)
CDEC 1458 Creative Arts for Early Childhood
This course is an exploration of principles, methods, and materials for teaching music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking for children birth through age eight. (4:3-3)

CDEC 2326 Administration of Programs for Children I
This course includes the application of management procedures for early child care and education programs. Includes planning, operating, supervising, and evaluating programs. Topics cover philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication. (3:3-0)

CDEC 2328 Administration of Programs for Children II
This course includes an in-depth study of the skills and techniques in managing early care and education programs, including legal, ethical issues, personnel management, team building, leadership, conflict resolution, stress management advocacy, professionalism, fiscal analysis, planning parent education/partnerships, and technical applications in programs. (3:3-0)

CDEC 2341 The School Age Child
This is a study of programs for the school age child, including an overview of development, learning environments, materials, activities, and guidance techniques. (3:3-0)

CDEC 2366 Practicum (or Field Experience) - Child Care Provider/Assistant
This course includes practical, general workplace training supported by an individualized learning plan developed by the employer, College, and 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. This course may be repeated if topics and learning outcomes vary. Prerequisite or co-requisite: CDEC 1319 (3:0-21)

CDEC 2407 Math and Science for Early Childhood
This course is an exploration of principles, methods, and materials for teaching children math and science concepts and process skills through discovery and play. (4:3-3)

CDEC 2422 Child Development Associate Training II
This course is a continuation of the study of the requirements for the Child Development Associate (CDA). The six functional areas of study include family, program management and professionalism. (4:3-4)

CDEC 2424 Child Development Associate Training III
This course is a continuation of the requirements for the Child Development Associate (CDA). The three functional areas of study include family, program management and professionalism. (4:3-4)

CDEC 2471 The Hospitalized Child
This course focuses on children in the health care environment. The course will explore the impact of illness and injury on a child and their family. This includes the theoretical framework for how children and families adapt to stressful and life-threatening situations, and strategies health care professionals can use to foster patient-and family-centered care. This course will specifically explore the field of child life, the official documents and scope of practice, and how this field makes an immediate and positive impact on children and families in the healthcare setting. This course will be taught by a Certified Child Life Specialist. This course will satisfy the requirements outlined by the Child Life Council. Students will be required to do 3 hours of field experience per week. Co-requisite: TECA 1354 (4:3-3)

CETT 1302 Electricity Principles
This course covers principles of electricity including proper use of test equipment, A/C and D/C circuits, and component theory and operation. Prerequisites: Reading level 6, Writing level 6, Math level 6 (3:2-2)

CETT 1303 DC Circuits
This is a study of the fundamentals of direct current including Ohm’s law, Kirchhoff’s laws, and circuit analysis techniques. Emphasis is on circuit analysis of resistive networks and DC measurements. (3:2-2)

CETT 1305 AC Circuits
This is a study of the fundamentals of alternating current, including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Prerequisite: CETT 1303 or department chair approval (3:2-2)

CETT 1325 Digital Fundamentals
This entry level course in digital electronics covers number systems, binary mathematics, digital codes, logic gates, Boolean algebra, Karnaugh maps, and combinational logic, with an emphasis on circuit logic analysis and troubleshooting digital circuits. (3:2-2)

CETT 1329 Solid State Devices
This course is a study of diodes, transistor characteristics and other semiconductor devices, including analysis of static and dynamic characteristics, biasing techniques, and thermal considerations. (3:2-2)
COURSE DESCRIPTIONS

**CETT 1345 Microprocessor**
This introductory course in microprocessor software and hardware focuses on architecture, timing sequence operation, and programming. It also reviews appropriate software diagnostic language and tools. Prerequisite: CETT 1325 or department chair approval (3:2-2)

**CETT 1349 Digital Systems**
This course in electronics covers digital systems. Emphasis is on application and troubleshooting digital systems using counters, registers, code converters, multiplexes, analog-to-digital-to-analog circuits, and large-scale integrated circuits. Prerequisite: CETT 1325 or department chair approval (3:2-2)

**CETT 1357 Linear Integrated Circuits**
This is a study of the characteristics, operations, stabilization, testing, and feedback techniques of linear integrated circuits. It focuses on computation, measurements, instrumentation, and active filtering. Prerequisite: CETT 1329 or department chair approval (3:2-2)

**CETT 1409 DC-AC Circuits**
This course is a study of fundamentals of DC circuits and AC circuits operation including Ohm’s law, Kirchoff’s laws, networks, transformers, resonance, phasors, capacitive and inductive and circuit analysis techniques. (3:2-6)

**CETT 2449 Research and Project Design**
This course focuses on the principles of electrical/electronics design, encompassing schematics wiring diagrams, materials lists, operating characteristics, completion schedules, and cost estimates. (4:3-3)

**CHEF 1205 Sanitation and Safety**
This is a study of personal cleanliness; sanitary practices in food preparation, causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points; and workplace safety standards. (2:2-0)

**CHEF 1313 Food Service Operation/Systems**
This course is an overview of the information needs of food and lodging properties. Emphasis is on both front, back, and material management utilizing computer systems. (3:3-0)

**CHEF 1314 A La Carte Cooking**
This course covers a la carte “cooking to order” concepts. Topics include menu and recipe interpretation and conversion, organization of work station, employment of appropriate cooking methods, plating, and saucing principles. Prerequisite: CHEF 1205 (3:2-4)

**CHEF 1345 International Cuisine**
This course covers the study of classical cooking skills associated with the preparation and service of international and ethnic cuisines. Topics include similarities between food production systems used in the United States and in other regions of the world. Prerequisite: CHEF 1401, Co-requisite: CHEF 1205 (3:1-5)

**CHEF 1401 Basic Food Preparation**
This is a study of the fundamental principles of food preparation and cookery to include the Brigade System, cooking techniques, material handling, heat transfer, sanitation, safety, nutrition, and professionalism. Study will include basic skills and terminology. Prerequisite: CHEF 1205 (4:3-3)

**CHEF 1402 Principles of Healthy Cuisine**
This course is an introduction to the principles of planning, preparation, and presentation of nutritionally balanced meals. It covers adoption of basic cooking techniques to lower the fat caloric content. Alternative methods and ingredients will be used to achieve a healthier cooking style. Prerequisite: CHEF 1401 (4:3-3)

**CHEF 1410 Garde Manger**
This is a study of cold foods and garnishes, with an emphasis on design, techniques, and display of fine foods. It also emphasizes basic garde manger principles and training techniques for food service professionals. Prerequisite: CHEF 1401 or PSTR 1301 and Co-requisite: CHEF 1205 (4:2-4)

**CHEF 2302 Saucier**
This course focuses on instruction in the preparation of stocks, soups, classical sauces, contemporary sauces, accompaniments, and the pairing of sauces with a variety of foods. Prerequisite: Departmental Approval required: 11 completed credit hours to include CHEF 1205, CHEF 1401 and 6 additional credit hours in CHEF, PSTR, IFWA, or RSTO prior to taking CHEF 2365 Practicum. (3:0-21)
CHEM 1105 Introductory Chemistry I (lab)
This survey course is introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and non-allied health students. Prerequisites: Reading level 7, Writing level 6, and Math level 6; co-requisite: CHEM 1305 (1:0-3)

CHEM 1107 Introductory Chemistry II (lab)
This lab survey course is introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and non-allied health students. Prerequisites: CHEM 1305/1105; co-requisite: CHEM 1107 (3:3-0)

CHEM 1111 General Chemistry I (lab)
This lecture course covers the fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry. Prerequisites: Reading level 7, Math level 9 and Math 1314 or higher; co-requisite: CHEM 1311 (3:3-0)

CHEM 1112 General Chemistry II (lab)
This second semester of the general inorganic chemistry lecture course includes the study of covalent bonding, isomerism, nomenclature, alkyl halides, substitution and elimination reactions, free radical reactions, alkenes, alcohols, ethers and spectroscopy. Prerequisite: CHEM 1312/1112; co-requisite: CHEM 2323 (3:3-0)

CHEM 2123 Organic Chemistry I (lab)
This introductory organic chemistry course includes the study of covalent bonding, isomerism, nomenclature, alkyl halides, substitution and elimination reactions, free radical reactions, alkenes, alcohols, ethers and spectroscopy. Prerequisite: CHEM 1312/1112; co-requisite: CHEM 2323 (1:0-3)

CHEM 2125 Organic Chemistry II (lab)
This second semester of introductory organic chemistry lab course includes the study of alkenes, alkynes, aromatic compounds, aldehydes, ketones, carboxylic acids and their derivatives, polycyclic and heterocyclic compounds, carbohydrates, amino acids, and proteins. Prerequisite: CHEM 2323/2123; co-requisite: CHEM 2325 (1:0-3)

CHEM 2323 Organic Chemistry I (lecture)
This introductory organic chemistry lecture course includes the study of covalent bonding, isomerism, nomenclature, alkyl halides, substitution and elimination reactions, free radical reactions, alkenes, alcohols, ethers and spectroscopy. Prerequisite: CHEM 1312/1112; co-requisite: CHEM 2123 (3:3-0)

CHEM 2325 Organic Chemistry II (lecture)
This second semester of introductory organic chemistry lecture course includes the study of alkenes, alkynes, aromatic compounds, aldehydes, ketones, carboxylic acids and their derivatives, polycyclic and heterocyclic compounds, carbohydrates, amino acids, and proteins. Prerequisite: CHEM 2323/2123; co-requisite: CHEM 2125 (3:3-0)
CHEM 2389 Academic Cooperative
This is an instructional program designed to integrate on-campus study with practical hands-on work experience in the physical sciences. In conjunction with class seminars, the individual student will set specific goals and objectives in the scientific study of inanimate objects, processes of matter and energy, and associated phenomena. Prerequisites: Eight hours of chemistry; Reading level 7, Writing level 7, Math level 7 (3:1-8)

CHIN 1411 Beginning Chinese I
This course is basic Chinese language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the beginner level. Prerequisite: Reading level 6 (4:3-2)

CHIN 1412 Beginning Chinese II
This course is a continued development of basic Chinese language skills in listening, speaking, reading, and writing within a cultural framework. Students acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the high beginner to low intermediate level. Prerequisite: CHIN 1411 (4:3-2)

CHIN 2311 Intermediate Chinese I
This course covers a review and application skills in listening comprehension, speaking, reading and writing. It emphasizes conversation, vocabulary acquisition, reading, composition, and culture. This course is designed to give the student who has completed CHIN 1411 and CHIN 1412 increased fluency and confidence in the use of the Chinese language. Although no lab is scheduled, students will have access to tapes and other lab materials and will be encouraged to use these supplemental learning tools. Prerequisite: CHIN 1412 (3:3-0)

CHIN 2312 Intermediate Chinese II
This course is a review and application of skills in listening comprehension, speaking, reading and writing, emphasizing conversation, vocabulary acquisition, reading, composition, and culture. This course is a continuation of CHIN 2311. Although no lab is scheduled, students will have access to tapes and other lab materials and will be encouraged to use these supplemental learning tools. Prerequisite: CHIN 2311 (3:3-0)

CJCR 1307 Correctional Systems and Practices
This is a study on corrections in the criminal justice system; organization of correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues. Credit will not be given for both CJCR 1307 and CRIJ 2313. (3:3-0)

CJCR 2324 Community Resources in Corrections
This course is an overview of diversionary practices and treatment programs available to offenders in a local context. Topics include selected recognized models and future trends in community treatment. Credit will not be given for both CJCR 2324 and CRIJ 2301. (3:3-0)

CJCR 2325 Legal Aspects of Corrections
This course is a study of the operation, management, and legal issues affecting corrections. Analysis of constitutional issues involving rights of the convicted, as well as civil liability of correctional agencies and staff. Prerequisite: Reading level 4 (3:3-0)

CJLE 1327 Interviewing and Report Writing for Criminal Justice Professions
This course covers instruction and skill development in interviewing, note taking, and report writing in the criminal justice context; development of skills to conduct investigations by interviewing witnesses, victims, and suspects properly; and organization of information regarding incidents into effective written reports. (3:3-0)

CJLE 1333 Traffic Law and Investigation
This course covers instruction in the basic principles of traffic control, traffic law enforcement, court procedures, and traffic law. Emphasis is on the need for a professional approach in dealing with traffic law violators and the police role in accident investigation and traffic supervision. (3:3-0)

CJSA 1308 Criminalistics I
This course is an introduction to the field of criminalistics. Topics include the application of scientific and technical methods in the investigation of crime including location, identification, and handling of evidence for scientific analysis. (3:3-0)

CJSA 1312 Crime in America
This course covers the study of crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and crime prevention. (Note: Credit will not be given for both CJSA 1312 and CRIJ 1307.) (3:3-0)
CJSA 1313 Court Systems and Practices
This course examines the role of the judiciary in the criminal justice system. Topics include the structure of the American court system, prosecution, right to counsel, pretrial release, grand jury process, adjudication process, types and rules of evidence, and sentencing concepts. (Note: Credit will not be given for both CJSA 1313 and CRIJ 1306.) (3:3-0)

CJSA 1317 Juvenile Justice System
This course is a study of the juvenile justice process. Topics include specialized juvenile law, role of the juvenile law, role of the juvenile courts, role of police agencies, role of correctional agencies, and theories concerning delinquency. (Note: Credit will not be given for both CJSA 1317 and CRIJ 1313.) (3:3-0)

CJSA 1322 Introduction to Criminal Justice
This course provides a historical and philosophical overview of the American criminal justice system, including the nature, extent, and impact of crime; criminal law; and justice agencies and processes. Credit will not be given for both CRIJ 1301 and CJSA 1322. (3:3-0)

CJSA 1327 Fundamentals of Criminal Law
This course is the study of the nature of criminal law. Topics include philosophical and historical development, major definitions and concepts, classification of crime, elements of crimes and penalties using Texas statutes as illustrations, and criminal responsibility. Credit will not be given for both CRIJ 1310 and CJSA 1327. (3:3-0)

CJSA 1342 Criminal Investigation
This course is a study of investigative theory, collection and preservation of evidence, sources of information, concepts of interviewing and interrogation, the use of forensic sciences, and trial preparation. (Note: credit will not be given for both CJSA 1342 and CRIJ 2314.) (3:3-0)

CJSA 1348 Ethics in Criminal Justice
This course is a study of ethical philosophies and issues pertaining to the various professions in the criminal justice system. Includes ethical issues emanating from constitutional conflict with public protection and individual rights, civil liberties, and correctional policies. (3:3-0)

CJSA 1351 Use of Force
This course is a study of the use of force including introduction to and statutory authority for the use of force, force options, deadly force, and related legal issues. Fulfills the Texas Commission on Law Enforcement Use of Force Intermediate Certificate requirement. (3:3-0)

CJSA 1359 Police Systems and Practices
This course explores the police officer profession. Topics include organization of law enforcement systems, the police role, police discretion, ethics, police-community interaction, and current and future issues. (Note: credit will not be given for both CJSA 1359 and CRIJ 2328.) (3:3-0)

CJSA 2300 Legal Aspects of Law Enforcement
This is an exploration of police authority. Topics include responsibilities and constitutional restraints, law of arrest, search and seizure, and police liability. (Note: credit will not be given for both CJSA 2300 and CRIJ 2323.) (3:3-0)

CJSA 2323 Criminalistics II
This course focuses on the theory and practice of crime scene investigation. Topics include report writing, blood and other body fluids, document examination, etchings, casts and molds, glass fractures, use of microscope, and firearms identification. (3:3-1)

CJSA 2364 Practicum (or Field Experience) - Criminal Justice/Safety Studies
This course offers practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. The plan relates the workplace training and experiences to the student’s general and technical course of study, and it includes a written agreement between the educational institution and a business or industry. Monitored and supervised by the instructor and a workplace employee, the student achieves objectives that are developed and documented by the College, and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. Prerequisite: 15 credit hours of criminal justice courses (9 of these credit hours must be earned at San Jacinto College), and an accumulative GPA of at least 2.0 is required. (Note: the student must receive approval to enroll from instructor at least 60 days prior to start of course.) (3:0-21)

CJSA 2388 Internship - Criminal Justice Studies
This is an intermediate or advanced type of work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty or the work supervisor. An internship may be a paid or non-paid learning experience in the criminal justice profession. This course may be repeated if topics and learning outcomes vary. Prerequisite: department chair approval (3:0-9)
CMSW 1341 Behavior Modification and Cognitive Disorder
This is an in-depth study of the theories and principles of behavioral science and the methods of modifying and controlling behavior in clients with cognitive disorders. Prerequisites: Reading level 6, Writing level 6 (3:3-0)

CNBT 1210 Basic Construction Safety
This course provides an introduction to basic job site construction in residential, commercial, and industrial construction. This course is designed to prepare students who complete the course to sit for the OSHA 10-hour certification exam. (2:2-0)

CNBT 1311 Construction Methods & Materials I
This course provides an introduction to construction materials and methods and their applications including an introduction to green materials and methods. (3:3-0)

CNBT 1315 Field Engineering I
This course will focus on surveying equipment, sketches, proper field note taking, methods of staking, layout of building sites, and horizontal and vertical controls at a construction site. (3:2-2)

CNBT 1442 Building Codes and Inspections
This course is a study of building codes, standards applicable to building construction, and inspection processes. (4:4-0)

CNBT 1446 Construction Estimating I
This course is a study of fundamentals of estimating materials and labor costs in construction. (4:3-3)

CNBT 2310 Commercial/Industrial Blueprint Reading
This course provides an introduction to blueprint reading for commercial/industrial construction. Topics of study will include architectural and engineering scales, blueprint symbols and abbreviations, interpreting a set of commercial/industrial construction contract documents, and correlation of elevations, selections, details, plan views, schedules, and general notes. (3:2-4)

CNBT 2315 Construction Specifications and Contracts
This course is a study of the legal aspects of written construction documents. (3:3-0)

CNBT 2342 Construction Management I
This course is a study of management skills on the job site. Topics of study will include written and oral communications, leadership and motivation, problem solving, and decision making. (3:3-0)

CNBT 2344 Construction Management II
This course is a management course in contract documents, safety, planning, scheduling, production control, and law and labor issues. Topics of study include contracts, planning, cost and production peripheral documents, and costs and work analysis. (3:3-0)

CNBT 2366 Practicum-Construction Technology
This course is a practical, general workplace training supported by an individual learning plan developed by the employer, college, and student. Direct supervision is provided by a faculty member or worker supervisor. A practicum may be a paid or unpaid learning experience. The job description for the worksite must relate to the general curriculum of the Construction Management program. Prerequisite: CNBT 2310 or department chair approval (3:0-21)

CNBT 2435 Computer-Aided Construction Scheduling
This course provides a study of advanced construction scheduling utilizing computer scheduling software to perform various scheduling procedures. (4:3-3)

CNBT 2440 Mechanical, Plumbing and Electrical Systems in Construction II
This course is a study of the processes and methods used in design, selection of equipment, and installation of mechanical, plumbing, and electrical systems in commercial buildings. Topics of study will include heating and cooling systems, duct work, mechanical and electrical control systems, lighting requirements, and design of water supply and sanitary sewer systems including methods and materials used in buildings to conserve water, electricity, and natural gas. (4:3-2)

COMM 1307 Introduction to Mass Communication
This course surveys the basic content and structural elements of mass media, as well as their functions and influences on society. Prerequisite: Reading Level 7 (3:3-0)

COMM 1318 Beginning Photography
This course offers an introduction to the basics of photography, including techniques and equipment operation. Students will not receive credit for both ARTS 2356 and COMM 1318 (3:1-5)

COMM 1319 Intermediate Photography
This course offers further development of techniques with emphasis on content and composition of photographs, including experience in a variety of professional and technical areas. Students will not receive credit for both ARTS 2357 and COMM 1319. Prerequisite: COMM 1318 or ARTS 2356 or department chair approval (3:1-5)
COMM 2289 Academic Cooperative
This is an instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of communication. (2:2-10)

COMM 2309 Editing I
This course covers the fundamentals of copy editing for newspapers, including copy reading, headline writing, and makeup. It includes studies in news value, story organization, clarity and writing and style, and typography as related to makeup. Prerequisites: COMM 2311 or consent of department chair, Reading level 7, Writing level 7 (3:2-2)

COMM 2311 Media Writing
This course offers students an introduction to the fundamentals of writing for the mass media. Includes instruction in professional methods and techniques for gathering, processing, and delivering content. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

COMM 2315 News Reporting
This course focuses on advanced news-gathering and writing skills. It concentrates on the three-part process of producing news stories: discovering the news, reporting the news, and writing the news in different formats. Prerequisite: Reading level 7, Writing level 7, COMM 2311 (3:3-0)

COMM 2327 Principles of Advertising
This course covers the fundamentals of advertising, with special attention to advertising techniques for the mass media; copy preparation; headlines; and use of artwork and layout theories for newspaper and magazine advertising, direct mail, radio, television, outdoor, and other types of advertising. Prerequisite: Reading level 7 (3:3-0)

COMM 2339 Writing for Electronic Media
This course introduces gathering, editing, and presenting news and public service programs, documentaries, commercials, and special programs for radio, television and other forms of electronic media. Prerequisites: Reading level 6, Writing level 6 (3:3-0)

COSC 1336 Programming Fundamentals I
This course 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. This course is included in the Field of Study Curriculum for Computer Science. Prerequisite: Reading level 7 (3:2-2)

COSC 1337 Programming Fundamentals II
This course focuses on the object-oriented programming paradigm, emphasizing the design and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. (This course is included in the Field of Study Curriculum for Computer Science.) (3:2-2)

COSC 2325 Computer Organization
The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfacing are introduced. This course is included in the Field of Study Curriculum for Computer Science. Algebra level competency is suggested to succeed in this class. Prerequisite: COSC 1336 and COSC 1337 or department chair approval (3:2-2)

COSC 2327 Introduction to Advertising
This course offers students an introduction to the fundamentals of advertising including marketing theory and strategy, copywriting, design, and selection of media. Prerequisite: Reading level 7 (3:3-0)

COSC 2336 Programming Fundamentals III
This course explores further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. The topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. Prerequisite: COSC 1337 or department chair approval (3:2-2)

CPMT 1303 Introduction to Computer Technology
This fundamental computer procedures, hardware, and software. Emphasis is on terminology, acronyms, and hands-on activities. (3:2-2)

CPMT 1345 Computer Systems Maintenance
Students will develop skill in the use of test equipment and maintenance aids through examination of the functions of components within a computer system. Prerequisite: CPMT 1303, ITSC 1305 or department chair approval. (3:2-2)

CPMT 1349 Computer Networking Technology
This beginning course in computer networks focuses on networking fundamentals, terminology, hardware, software, and network architecture. It includes study of local/wide area networking concepts and networking installations and operations. Prerequisites: CPMT 1345, ITSC 1325 or department chair approval (3:2-2)
CPMT 2302 Home Technology Integration
This course covers integration and maintenance of various home technology subsystems. Includes home automation, security and surveillance, home networks, video and audio networks, and structured wiring. Prerequisites: EECT 1307 and (ITCC 1301 or ITNW 1325) or department chair approval (3:2-2)

CPMT 2333 Computer Integration
This is an advanced course in integration of hardware, software, and applications. A key focus is customization of computer systems for specific applications in engineering, multimedia, or data acquisition. Prerequisite: CPMT 1345, ITSC 1325 or department chair approval (3:2-2)

CPMT 2345 Computer System Troubleshooting
This course focuses on principles and practices involved in computer system troubleshooting techniques and repair procedures, including advanced diagnostic test programs and the use of specialized test equipment. Prerequisites: CPMT 1345, ITSC 1325 or department chair approval. (3:2-2)

CPMT 2349 Advanced Computer Networking
This is an in-depth study of network technology, with emphasis on network operating systems, network connectivity, hardware, and software. It helps students gain mastery of implementation, troubleshooting, and maintenance of LAN and/or WAN network environments. Prerequisite: CPMT 1349 or ITCC 1404 (3:2-2)

CRIJ 1301 Introduction to Criminal Justice
This course provides a historical and philosophical overview of the American criminal justice system, including the nature, extent, and impact of crime; criminal law; and justice agencies and processes. Credit will not be given for both CRIJ 1301 and CJSA 1322. (3:3-0)

CRIJ 1306 Court Systems and Practices
This course is a study of the court system as it applies to the structures, procedures, practices and sources of law in American courts, using federal and Texas statutes and case law. Topics include the structure of the American court system, prosecution, right to counsel, pretrial release, grand jury process, adjudication process, types and rules of evidence, and sentencing concepts. Credit will not be given for both CRIJ 1306 and CJSA 1313. (3:3-0)

CRIJ 1307 Crime in America
This course covers the study of crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and crime prevention. Prerequisite: Reading level 4. Credit will not be given for both CRIJ 1307 and CJSA 1312. (3:3-0)
CSME 1248 Principles of Skin Care
This course is an introduction of the theory and practice of skin care. Courses taken in level sequence order or department chair approval. 80 contact hours per semester. 2:1-4)

CSME 1302 Applications of Facial and Skin Care Technology I
This is an introduction to the application of facial and skin care technology. Includes indentifying and utilizing professional skin care products. Co-requisites: CSME 1421 and 1520, or department chair approval. 80 contact hours per semester. (3:2-3)

CSME 1308 Principles of Eyelash Extensions
This course provides the student with the practical skills necessary to safely and effectively apply eyelash extensions. Co-requisites: CSME 1409 and 1507 or department chair approval. 80 contact hours per semester (3:1-4)

CSME 1310 Introduction to Haircutting and Related Theory
This course is an introduction to the theory and practice of hair cutting. Topics include terminology, implements, sectioning, and finishing techniques. Courses taken in level sequence order or department chair approval. 112 contact hours per semester. (3:1-6)

CSME 1330 Orientation to Nail Technology
This course is an overview of the fundamental skills and knowledge necessary for the field of nail technology. Courses taken in level sequence order or department chair approval. 144 contact hours per semester (3:1-8)

CSME 1354 Artistry of Hair Design I
This course is an introduction to hair design. Topics include the theory and applications of wet styling, braiding, thermal hair styling and finishing techniques. Courses taken in level sequence order or department chair approval. 112 contact hours per semester. (3:1-6)

CSME 1355 Artistry of Hair Design II
This is a continuation of hair design. Topics include additional theory and applications of current trends in hair design. Courses taken in level sequence order or department chair approval. (Students may not receive credit for CSME 1355 if they have previously earned credit for COSM 1232, COSM 1332 or CSME 1251.) 112 contact hours per semester (3:1-6)

CSME 1409 Application of Eyelash Extensions
This course provides the student with the skills necessary to perform client services using current techniques and business practices. Co-requisite: CSME 1308 and 1507 or department chair approval. 96 contact hours per semester (4:2-4)

CSME 1421 Principles of Facial and Skin Care Technology I
This is an introduction to the principles of facial and skin care technology. Topics include anatomy, physiology, theory, and related skills of facial and skin care technology. Co-requisites CSME 1520, CSME 1302 and courses taken in level sequence order or department chair approval. 128 contact hours per semester. (4:2-6)

CSME 1435 Orientation to the Instruction of Cosmetology
This course is an overview of skills and knowledge necessary for the instruction of cosmetology students. Co-requisite: CSME 1534, and valid Texas Department of Licensing and Regulations License, high school diploma or GED or department chair approval. 112 contact hours per semester. (4:2-5)

CSME 1457 Applications of Hair-Weaving and Braiding
This course is an emphasis on the application of hair weaving and braiding techniques and preparation for the State Licensing Agency examination. Co-requisite: CSME 1552. 144 contact hours (4:2-7)

CSME 1501 Orientation to Cosmetology
This course is an overview of the skills and knowledge necessary for the field of cosmetology. Courses taken in level sequence order or department chair approval. 176 contact hours per semester. (5:3-8)

CSME 1505 Fundamentals of Cosmetology
This is a course in the basic fundamentals of cosmetology. Topics include safety and sanitation, service preparation, manicure, facial, chemical services, shampoo, haircut, wet styling, and comb out. Courses taken in level sequence order or department chair approval. 112 contact hours per semester. (5:3-4)

CSME 1507 Orientation to Eyelash Extensions
This course is an overview of the skills and knowledge necessary for the field of eyelash extensions. Topics include the basic knowledge of chemistry, eyelash growth cycles, proper selection and application, supplies and equipment of the industry, safety, sanitation, laws and rules of the state licensing agency as they relate to eyelash extensions. Co-requisites: CSME 1308 and 1409 or department chair approval. 144 contact hours per semester (5:3-6)

CSME 1520 Orientation to Facial Specialist
This course is an overview of the skills and knowledge necessary for the field of facials and skin care. Co-requisite: CSME 1421, CSME 1302 or department chair approval. 176 contact hours per semester. (5:3-8)
CSME 1531 Principles of Nail Technology I
This is a course in the principles of nail technology. Topics include anatomy, physiology, theory, and related skills of nail technology. 176 contact hours per semester. (5:3-8)

CSME 1534 Cosmetology Instructor I
This course covers the fundamentals of instructing cosmetology students. Co-requisite: CSME 1435 or department chair approval. A valid Texas Department of Licensing and Regulation license and high school diploma or GED. 144 contact hours per semester. (5:6)

CSME 1541 Principles of Nail Technology II
This course is a continuation of the concepts and principles of nail technology. Topics include professional ethics, salon management, client relations and related skills of nail technology. Courses taken in level sequence order or department chair approval. 176 contact hours per semester. (5:3-8)

CSME 1545 Principles of Facial and Skin Care Technology II
This course is a continuation of the concepts and principles in skin care and other related technologies. Topics include instruction in anatomy, physiology, theory, and related skills of facial and skin care technology. Co-requisites: CSME 1520, CSME 1421, CSME 1302, CSME 2431 and CSME 2333 or department chair approval. 176 contact hours per semester. (5:3-8)

CSME 1552 Orientation to Hair-Weaving and Braiding
This course is an overview of the skills and knowledge necessary for the field of hair weaving and braiding. (Students may not receive credit for CSME 1552 if they have previously earned credit for CSME 1471 or CSME 1472.) Prerequisite: Reading level 4. Co-requisite: CSME 1457. 160 contact hours per semester. (5:3-7)

CSME 1553 Chemical Reformation and Related Theory
This is a presentation of the theory and practice of chemical reformation including terminology, application and workplace competencies. Emphasis on history, chemistry, hair structure, chemical texturizing techniques, service preparation, brush and scalp techniques/analysis, shampooing and conditioning. Courses taken in level sequence order or department chair approval. (Students may not receive credit for CSME 1553 if they have previously earned credit for COSM 1321 or COSM 1312.) 176 contact hours (5:3-8)

CSME 2251 Preparation for the State Licensing Practical Examination
This course is preparation for the state licensing practical examination. To obtain course credit conversion, students must pass this course with a grade of “C” or better or repeat the course. Courses taken in level sequence order or department chair approval. (Student may not receive credit for CSME 2251 if they have previously earned credit for CSME 2245). 80 contact hours per semester. (2:1-4)

CSME 2310 Advanced Haircutting and Related Theory
This course focuses on advanced concepts and practice of haircutting. Topics include haircuts utilizing scissors, razors, and/or clippers. Prerequisite: CSME 1310 and courses taken in level sequence order or department chair approval. 112 contact hours per semester. (3:1-6)

CSME 2333 Application of Facial and Skin Care Technology II
This course is a continuation of the Application of Facial and Skin Care Technology I. Preparation for the state licensing Facial Specialty Exam. Co-requisites: CSME 1520, CSME 1421, CSME 1302, CSME 1545, and CSME 2431 or department chair approval. (Students may not receive credit for CSME 2333 if they have previously earned credit for CSME 1372 or CSME 1272.) 80 contact hours per semester. (3:2-3)

CSME 2337 Advanced Cosmetology Techniques
This course covers the mastery of advanced cosmetology techniques including hair designs, professional cosmetology services, and workplace competencies. Department chair approval. 80 contact hours per semester. (3:1-4)

CSME 2343 Salon Development
This course offers procedures necessary for salon development. Topics include professional ethics, goal setting, salon operation, record keeping. Courses taken in level sequence order or department chair approval. 96 contact hours per semester. (3:1-5)

CSME 2350 Preparation for the State Licensing Written Examination
This course is the preparation for the state licensing written examination. To obtain course credit conversion, students must pass this course with a grade of “C” or better or repeat the course. Courses taken in level sequence order or department chair approval. 96 contact hours per semester. (3:2-4)

CSME 2414 Cosmetology Instructor II
This course is a continuation of the fundamentals of instructing cosmetology students. Prerequisite: CSME 1435 and 1534. Co-requisite: CSME 2549 or department chair approval. 112 contact hours per semester. (4:2-5)
CSME 2430 Nail Enhancement
This is a course in the theory, application, and related technology of nail enhancements. 112 contact hours (4:3-4)

CSME 2431 Principles of Facial and Skin Care Technology III
This course focuses on advanced concepts and principles of skin care and other related technologies. Prerequisites: CSME 1520, CSME 1421, and CSME 1302. Co-requisites: CSME 1545, CSME 2333 or department chair approval. 128 contact hours per semester. (4:2-6)

CSME 2445 Instructional Theory and Clinic Operation
This course is an overview of the objectives required by the Texas Department of Licensing and Regulation Instructor Examination. Prerequisite: CSME 1435 and 1534. Co-requisite: CSME 2544 or department chair approval. 112 contact hours per semester. (4:2-5)

CSME 2501 Principles of Hair Coloring and Related Theory
This course is a presentation of the theory, practice and chemistry of hair color. Topics include terminology, application, and workplace competencies related to hair color. Courses taken in level sequence order or department chair approval. 176 contact hours per semester. (5:3-8)

CSME 2539 Advanced Hair Design
This course promotes advanced concepts in the theory and practice of hair design. (Students may not receive credit for CSME 2539 if they have previously earned credit in CSME 2439) Courses taken in level sequence order or department chair approval. 176 contact hours per semester. (5:2-9)

CSME 2544 Cosmetology Instructor IV
This course is an advanced concepts of instruction in a cosmetology program. Topics include demonstration, development and implementation of advanced evaluation techniques. Prerequisite: CSME 1435 and 1534. Co-requisite: CSME 2445 or department chair approval. 144 contact hours per semester. (5:3-6)

CSME 2549 Cosmetology Instructor III
This course is a presentation of lesson plan assignments and evaluation techniques. Prerequisite: CSME 1435 and 1534. Co-requisite: CSME 2414 or department chair approval. 144 contact hours per semester. (5:3-6)

CTEC 2487 Internship - Chemical Technology/Technician
This course is a work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisites: Reading level 7, Writing level 7, Math level 6 (4:0-24)

CTMT 2336 Computed Tomography Equipment and Methodology
This is a study of the actual operation and operational control of computed tomographic equipment, this course focuses on routine protocols, image quality, and quality control of computed tomography. Theory and application of computed tomographic equipment and the principles of patient imaging techniques utilizing the equipment are covered. Prerequisite: ARRT certified or registry eligible. (3:3-0)

CTMT 2360 Clinical 1 - Computed Tomography Technology/Technician
This is an advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional in a clinical setting. Prerequisite: ARRT certified with Instructor approval, and Prerequisite or Co-requisite: CTMT 2336 (3:0-12)

CTMT 2361 Clinical 2 - Computed Tomography Technology/Technician
This is an advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional in clinical setting. Prerequisite: ARRT certified with Instructor approval, and Prerequisite or Co-requisite: CTMT 2336 (3:0-12)

DAAC 1304 Pharmacology of Addiction
This course emphasizes pharmacological effects of addiction, tolerance, dependence, cross addiction, drug interaction, withdrawal, and recovery. Describes the psychological and physiological effects of substance use and behaviors. Prerequisites: Reading level 6, Writing level 6 (3:3-0)
DAAC 1311 Counseling Theories
This is an examination of the major theories and current treatment modalities used in the field of counseling. Prerequisites: Reading level 6, Writing level 6 (3:3-0)

DAAC 2307 Addicted Family Intervention
This is an examination of family systems focusing on the effects of addiction and recovery. Prerequisite: DAAC 1304 (3:3-0)

DAAC 2341 Counseling Alcohol and Other Drug Addictions
This is an advanced examination of skills, confidentiality, and ethical guidelines applied in the counseling, treatment, and recovery of substance use disorders. Prerequisites: Reading level 6, Writing level 6 (3:3-0)

DAAC 2366 Practicum - Substance Abuse/Addiction Counseling
This course is a practicum, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: must complete 28 hours in the program before the practicum (3:0-21)

DANC 1101 Dance Composition I
This course includes exploration of the qualitative use of the body through manipulation of the variables of space, time, weight, and flow. (1:0-3)

DANC 1151 Dance Performance I
This course includes exploration of dance as an art form through participation in and performance of choreographed works. Co-requisite: concurrent enrollment in ballet or modern or department chair approval required. (1:0-4)

DANC 1152 Dance Performance II
This course includes exploration of dance as an art form through participation in and performance of choreographed works. Co-requisite: concurrent enrollment in ballet or modern or department chair approval required. (1:0-4)

DANC 1305 World Dance I
This course is an exploration in dance forms from at least three major cultures from three continents, with an emphasis on rhythmic awareness and movement development. The cultural origins, significance, and motivation, as well as the use of costumes and music, will be explored in lecture and research. Instruction will include experiential and written assignments, live performances, guest artists, and multimedia resources. (3:2-2)

DANC 1306 World Dance II
This course is a continued exploration in dance forms from at least three major cultures from three continents, with an emphasis on rhythmic awareness and movement development. The cultural origins, significance, and motivation, as well as the use of costumes and music, will be explored in lecture and research. Instruction will include experiential and written assignments, live performances, guest artists, and multimedia resources. (3:2-2)

DANC 1341 Ballet I
This course includes introduction to the theory, practice, and terminology of classical ballet with emphasis on development and refinement of barre and center technique. (3:1-5)

DANC 1342 Ballet II
This course includes continuation and progression of DANC 1341 with emphasis on development and refinement of barre and center technique. (3:1-5)

DANC 1345 Modern Dance I
This course includes beginning technique in modern dance with emphasis on floor and center work, basic rhythm, and movement combinations. (3:1-5)

DANC 1346 Modern Dance II
This course includes continuation and progression of DANC 1345 with emphasis on floor and center work, rhythm, and movement combinations. (3:1-5)

DANC 1347 Jazz Dance I
This course includes introduction to the theory, practice, and terminology of various styles of jazz dance technique with emphasis on development and refinement of bodily awareness, rhythmic structures, and performance qualities. (3:1-5)

DANC 1348 Jazz Dance II
This course is a continuation and progression of DANC 1347 in the theory, practice, and terminology of various styles of jazz dance technique with emphasis on development and refinement of bodily awareness, rhythmic structures, and performance qualities. (3:1-5)

DANC 2151 Dance Performance III
This course includes exploration of dance as an art form through participation in and performance of choreographed works. Co-requisite: concurrent enrollment in ballet or modern or department chair approval required. (1:0-4)

DANC 2152 Dance Performance IV
This course includes exploration of dance as an art form through participation in and performance of choreographed works. Co-requisite: concurrent enrollment in ballet or modern or department chair approval required. (1:0-4)
DANC 2303 Dance Appreciation
This course is an introduction to dance as an art form with emphasis on historical perspectives, observation, and analysis of live and video performance, and exploration/analysis of creative and expressive experiences in dance. Prerequisite: Reading level 7 and Writing level 7 (3:3-0)

DANC 2325 Anatomy and Kinesiology for Dance
This course is an exploration of the sciences of anatomy and kinesiology as they apply to and support the analysis of human movement. Prerequisite: Reading level 6 and Writing level 6 (3:3-1)

DANC 2341 Ballet III
This is a further exposure to the theory, practice, and terminology of classical ballet with emphasis on expansion and refinement of the skills developed in DANC 1341 and DANC 1342. (3:1-5)

DANC 2342 Ballet IV
This is a further exposure to the theory, practice, and terminology of classical ballet with emphasis on expansion and refinement of the skills developed in DANC 2341. (3:1-5)

DANC 2345 Modern Dance III
DANC 2345 is intended to build upon and expand the technical skills developed in DANC 1345/1346 as well as to emphasize and enhance artistic aspects of movement. (3:1-5)

DANC 2346 Modern Dance IV
DANC 2346 is intended to build upon and expand the technical skills developed in DANC 2345 as well as to emphasize and enhance artistic aspects of movement. (3:1-5)

DANC 2347 Jazz Dance III
This course is a continuation and progression of DANC 1348 in the theory, practice, and terminology of various styles of jazz dance technique with emphasis on development and refinement of bodily awareness, rhythmic structures, and performance qualities. (3:1-5)

DANC 2348 Jazz Dance IV
This course is a continuation and progression of DANC 2347 in the theory, practice, and terminology of various styles of jazz dance technique with emphasis on development and refinement of bodily awareness, rhythmic structures, and performance qualities. (3:1-5)

DEMR 1229 Preventative Maintenance
This is an introductory course designed to provide the student with basic knowledge of proper servicing practices. Content includes record keeping and condition of major systems. (2:1-2)

DEMR 1301 Shop Safety and Procedures
This is a study of shop safety, rules, basic shop tools, and test equipment. Prerequisite: Reading level 4 (3:3-0)

DEMR 1306 Diesel Engine I
This is an introduction to the basic principles of diesel engines and systems. Prerequisite: Reading level 4 (3:2-4)

DEMR 1317 Basic Brake Systems
This is an introduction to the basic principles of brake systems of diesel powered equipment, with an emphasis on maintenance, repairs, and troubleshooting. (3:2-4)

DEMR 1380 Cooperative Education-Diesel Mechanics
This course offers 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. This course is designed to substitute for a DEMR three semester hour course in which a student has extensive diesel work experience and in which the student is currently working. The student must have permission from the lead diesel instructor before he/she can enroll in this class. This course can be taken only once for credit. Course includes a lecture component. Prerequisite: 12 credit hours in diesel technology at San Jacinto College (3:1-20)

DEMR 1405 Basic Electrical Systems
This is an introduction to the basic principles of electrical systems of diesel powered equipment with emphasis on starters, alternators, batteries, and regulators. Prerequisite: Reading level 4 (4:3-3)

DEMR 1410 Diesel Engine Testing and Repair I
This is an introduction to testing and repairing diesel engines including related systems and specialized tools. (4:3-3)

DEMR 1421 Power Train I
This is an introduction to fundamentals, repair and theory of power trains including clutches, transmissions, drive shafts, and differentials, with an emphasis on inspection and repair. Specific attention will include the Allison V-Drive, HD 740, World Transmission, and the 1000 and 2000 Series Transmissions. Prerequisite: Reading level 4 (4:3-3)

DEMR 1423 Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair
This is an introduction to heating, ventilation, and air conditioning theory, testing and repair, with an emphasis on refrigerant reclamation, safety procedures, specialized tools and repairs. Prerequisite: Reading level 4 (4:3-3)
DEMR 1449 Diesel Engine II
This course is an in-depth coverage of disassembly, repair, identification, evaluation, and reassembly of diesel engines. Prerequisite: Reading level 4 (4:3-3)

DEMR 1480 Cooperative Education-Diesel Mechanics
This course offers 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. This course is designed to substitute for a DEMR four semester hour course in which a student has extensive diesel work experience and in which the student is currently working. The student must have permission from the lead diesel instructor before he/she can enroll in this class. This course can be taken only once for credit. Course includes a lecture component. Prerequisite: 12 credit hours in diesel technology at San Jacinto College (4:1-25)

DEMR 2266 Field Experience-Diesel Mechanics
This course offers practical and general workplace training supported by an individual learning plan developed by the employer, college, and student. Prerequisite: 15 credit hours in diesel technology at San Jacinto College (2:0-16)

DEMR 2334 Advanced Diesel Tune-up and Troubleshooting
This course includes advanced concepts and skills required for tune-up and troubleshooting procedures of diesel engines, with an emphasis on the science of diagnostics with a common sense approach. Prerequisite: Reading level 4 (3:2-4)

DEMR 2412 Diesel Engine Testing and Repair II
This course is a continuation of Diesel Engine Testing and Repair I. It includes coverage of testing and repairing diesel engines including related systems and specialized tools. Prerequisite: Reading level 4 (4:3-3)

DEMR 2432 Electronic Controls
This course covers advanced skills in diagnostic and programming techniques of electronic control systems. Prerequisite: Reading level 4 (4:3-3)

DFTG 1409 Basic Computer-Aided Drafting
This course in an introduction to computer-aided drafting with an emphasis on setup, creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems, and plot/print to scale. (4:3-3)

DFTG 1410 Specialized Basic Computer Aided Drafting (CAD)
This is a supplemental course to Basic Computer-Aided Drafting using an alternative computer-aided drafting (CAD) software to create detail and working drawings. (4:3-3)

DFTG 1417 Architectural Drafting-Residential
This course focuses on architectural drafting procedures, practices, terms, and symbols, including preparation of detailed working drawings for residential structures with emphasis on light frame construction methods. Prerequisites: DFTG 1305 or DFTG 1405, and DFTG 1409 or department chair approval (4:3-3)

DFTG 1445 Parametric Modeling and Design
This course offers training with a parametric-based software for 3D design and drafting. (4:3-3)

DFTG 2317 Descriptive Geometry
This course focuses on developing graphical solutions to problems involving points, lines, and planes in space. Prerequisite: DFTG 1305 or DFTG 1405 (3:2-4)

DFTG 2338 Final Project - Advanced Drafting
This is a drafting course in which students participate in a comprehensive project from conception to conclusion. Department chair approval required. Prerequisite: 16 credit hours of engineering design graphics courses from the following group: ARCE 1421, ARCE 1452, DFTG 1417, DFTG 2402, DFTG 2406, DFTG 2407, DFTG 2408, DFTG 2421, DFTG 2423, DFTG 2428, DFTG 2431, DFTG 2435, DFTG 2445, DFTG 2457, DFTG 2458. (3:2-4)
DFTG 2386 Internship-Drafting and Design Technology/Technician
This is a work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. An internship may be either paid or unpaid. Students will have one orientation class with the instructor at the start of the semester. The job description for the worksite must relate to the general curriculum of the engineering design graphics department. Department chair approval required. Prerequisite: 16 hours of Engineering Design Graphics courses from the following group: ARCE 1421, ARCE 1452, DFTG 1402, DFTG 1410, DFTG 1417, DFTG 1445, DFTG 2402, DFTG 2406, DFTG 2407, DFTG 2408, DFTG 2419, DFTG 2421, DFTG 2423, DFTG 2428, DFTG 2431, DFTG 2432, DFTG 2435, DFTG 2440, DFTG 2445, DFTG 2457, DFTG 2458; eight of these credits must be earned at San Jacinto College (3:0-18)

DFTG 2402 Machine Drafting
This course will include a study of production of detail and assembly drawings of machines, threads, gears, utilizing tolerances, limit dimensioning, and surface finishes. Prerequisites: DFTG 1305 or DFTG 1405 and DFTG 1409 or department chair approval (4:3-3)

DFTG 2406 Machine Design
This course covers the theory and practice of design and includes projects in problem solving, including press fit, bolted and welded joints, and transmission components. Prerequisite: DFTG 2402 co-require or department chair approval (4:3-3)

DFTG 2407 Electrical Drafting
This course is a study of area lighting, control systems and power layouts, electrical and safety codes, local factors and distribution requirements. Prerequisites: DFTG 1305 or DFTG 1405 and DFTG 1409 or department chair approval (4:3-3)

DFTG 2408 Instrumentation Drafting
This course will include a study of principles of instrumentation applicable to industrial applications, fundamentals of measurement and control devices, currently used ISA (Instrumentation Society of America) symbology, and basic flow sheet layout and drafting practices. Prerequisites: DFTG 1305 or DFTG 1405 and DFTG 1409 or department chair approval (4:3-3)

DFTG 2419 Intermediate Computer-Aided Drafting
This course is a continuation of practices and techniques used in basic computer-aided drafting including the development and use of prototype drawings, construction of pictorial drawings, extracting data, and basics of 3D. This course uses MicroStation software. Prerequisite: DFTG 1410 or department chair approval (4:3-3)

DFTG 2421 Topographic Drafting
This course focuses on the plotting of surveyor’s field notes, including drawing elevations, contour lines, plan and profiles, and laying out traverses. Prerequisite: DFTG 1305 or DFTG 1405 and DFTG 1409 or department chair approval (4:3-3)

DFTG 2423 Pipe Drafting
This course is a study of pipe fittings, symbols, specifications and their applications to a piping process system, including the creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics. Prerequisites: DFTG 1305 or DFTG 1405 and DFTG 1409 or department chair approval (4:3-3)

DFTG 2428 Architectural Drafting-Commercial
This course focuses on architectural drafting procedures, practices, governing codes, terms and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Prerequisites: DFTG 1305 or DFTG 1413, and DFTG 1409 or department chair approval (4:3-3)

DFTG 2431 Advanced Technologies in Architectural Design and Drafting
This course focuses on the use of architectural specific software to execute the elements required in designing standard architectural exhibits utilizing custom features to create walls, windows and specific design requirements for construction in residential/commercial and industrial architecture. Prerequisite: DFTG 1417 or department chair approval (4:3-3)

DFTG 2432 Advanced Computer-Aided Drafting
This course covers application of advanced CAD techniques. Prerequisite: DFTG 1409 or department chair approval (4:3-3)

DFTG 2435 Advanced Technologies in Mechanical Design and Drafting
This course will focus on the use of parametric-based software for mechanical design for advanced modeling and analysis. Prerequisite: DFTG 2406 or department chair approval (4:3-3)

DFTG 2440 Solid Modeling/Design
This is a computer-aided modeling course that includes development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. Prerequisite: DFTG 1409 or department chair approval (4:3-3)

DFTG 2445 Advanced Pipe Drafting
This course is a continuation of pipe drafting concepts building on basic principles acquired in pipe drafting. Prerequisites: DFTG 2423 or department chair approval (4:3-3)
DFTG 2457 Advanced Technologies in Pipe Design and Drafting
This course focuses on advanced design and production techniques using specialized process plant based design software. Prerequisite: DFTG 2423 or department chair approval (4:3-3)

DFTG 2458 Advanced Machine Design
This course covers design process skills for the production of a complete design package, which includes jig and fixture design, extrusion dies, and injection mold design. Prerequisite: DFTG 2402 corequisite or department chair approval (4:3-3)

DITA 1400 Dietary Manager I
This preparation for supervisory roles in food service departments emphasizes normal and therapeutic nutrition and food service systems management. Major topics include dietary and meal planning guidelines, sources and functions of nutrients, diet therapy, nutritional assessment and care, food production management and purchasing, and regulatory agencies. Dietary Manager MSA (MDIET) students must enroll in FDNS 1168 concurrently. (4:4-0)

DITA 1401 Dietary Manager II
This course is a continuation of Dietary Manager I which emphasizes food service sanitation and safety, and administrative and personnel management. Major topics include regulatory agencies, computer applications, production management, budgeting and cost control, personnel management, quality assurance, leadership skills, human relations, and communications. Program director approval required. Dietary Manager MSA (MDIET) students must enroll in FDNS 1169 concurrently. (4:4-0)

DMSO 1110 Introduction to Sonography
This course provides an introduction to the profession of sonography and the role of the sonographer. Emphasis on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations and history of the profession. Prerequisites: Acceptance into the program (1:1-0)

DMSO 1251 Sonographic Sectional Anatomy
This course covers sectional anatomy of the male and female body. It includes anatomical relationships of organs, vascular structures, and body planes and quadrants. (2:2-1)

DMSO 1267 Practicum II - Diagnostic Medical Sonography
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. (2:0-18)

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This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. (2:0-18)

DMSO 1302 Basic Ultrasound Physics
This course covers basic acoustical physics and acoustical waves in human tissue. This covers ultrasound transmission in soft tissues, attenuation of sound energy, parameters affecting sound transmission, and resolution of sound beams. Prerequisites: acceptance into the ultrasound program (3:3-1)

DMSO 1342 Intermediate Ultrasound Physics
This course is a continuation of Basic Ultrasound Physics. Includes interaction of ultrasound with tissues, mechanics of ultrasound production and display, various transducer designs and construction, quality assurance, bioeffects, and image artifacts. May introduce methods of Doppler flow analysis. Prerequisite: Departmental approval required. (3:3-1)

DMSO 1355 Sonographic Pathophysiology
The course covers pathology and pathophysiology of the abdominal structures visualized with ultrasound. Includes abdomen, pelvis, and superficial structures. Prerequisites: DMSO 1260, 1210, 1302, 1441, 2405. (3:3-1)

DMSO 1367 Practicum III - Diagnostic Medical Sonography
This is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student (3:0-24)

DMSO 1391 Special Topics in Diagnostic Medical Sonography Technician
This course addresses 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 may be taken twice for credit. (3:3-1).

DMSO 1441 Abdominopelvic Sonography
This course covers normal anatomy and physiology of the abdominal and pelvic cavities as related to scanning techniques, transducer selection, and scanning protocols. Prerequisite: Departmental approval required. (4:3-4)

DMSO 2230 Advanced Ultrasound and Review
This course provides knowledge, skills, and professional values within a legal and ethical framework addressing emerging technologies and professional development. (2:1-4)
DMSO 2245 Advanced Sonography Practices
This course covers exploration of advanced sonographic procedures and emerging ultrasound applications. (2:2-0)

DMSO 2253 Sonography of Superficial Structures
This course is a detailed study of normal and pathological superficial structures as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Prerequisite: Departmental approval required. (2:2-1)

DMSO 2342 Sonography of High Risk Obstetrics
This course covers maternal disease and fetal abnormalities. Includes scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Prerequisites: DMSO 1260, 1210, 2405. (3:3-1)

DMSO 2343 Advanced Ultrasound Physics
This course covers theory and application of ultrasound principles. Includes advances in ultrasound technology. (3:3-0)

DMSO 2405 Sonography of Obstetrics/Gynecology
This course is a detailed study of the pelvis and obstetrics/gynecology as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Prerequisite: Departmental approval required. (4:3-3)

DNTA 1102 Communication and Behavior in the Dental Office
This course is a study of human interaction and communication in the dental office. Prerequisites: Reading level 6, Math level 6 (1:1-0)

DNTA 1113 Emergency Management
This course teaches students how to manage dental and medical emergencies. It teaches students about the maintenance of the medical emergency kit, and recording of vital signs. (1:1-1)

DNTA 1167 Practicum - Dental Assisting/Assistant
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. Prerequisites: Reading level 6, Math level 6 (1:0-10)

DNTA 1245 Preventive Dentistry
This course includes the study of nutrition and preventable dental disease and community dental health. Prerequisites: Reading level 6, Math level 6 (2:2-1)

DNTA 1251 Dental Office Management
This course uses computers and/or manual systems to process dental information and interpret and practice learned dental office management skills. Prerequisites: Reading level 6, Math level 6 (2:2-0).

DNTA 1301 Dental Materials
This course covers the composition, properties, procedures and safety standards related to dental materials. Prerequisites: Reading level 6, Math level 6 (3:2-2)

DNTA 1305 Dental Radiology
This course is an introduction to radiation physics, protection, and the operation of radiographic equipment. Includes instruction in exposure, processing and mounting of dental radiographs, and study of federal and state safety and standard practices. Prerequisites: Reading level 6, Math level 6 (3:2-3)

DNTA 1311 Dental Science
This course covers the fundamental anatomical systems with emphasis placed on head and neck anatomy. Topics include the embryology of the teeth along with basic dental terminology. Prerequisites: Reading level 6, Math level 6 (3:2-3)

DNTA 1341 Dental Laboratory Procedures
This course covers how to perform various dental laboratory procedures such as producing final study casts and fabricating provisional restorations. Prerequisites: Reading level 6, Math level 6 (3:2-2)

DNTA 1347 Advanced Dental Science
This course is an advanced study of anatomical systems, pharmacology, oral pathology, and developmental abnormalities. Prerequisites: Reading level 6, Math level 6 (3:3-0)

DNTA 1349 Dental Radiology in the Clinic
This course covers the practical application of exposing, processing, and mounting diagnostically acceptable radiographs obtained by utilizing various radiographic techniques. Prerequisites: Reading level 6, Math level 6 (3:2-3)

DNTA 1415 Chairside Assisting
This course is a study of pre-clinical chairside assisting procedures, instrumentation, OSHA and other regulatory agencies’ standards. Prerequisites: Reading level 6, Math level 6 (4:2-6)
DNTA 1453 Dental Assisting Applications
This course is an extended study of dental assisting techniques with emphasis on four-handed dentistry and utilization of armamentarium for general practice specialty procedures. Prerequisites: Reading level 6, Math level 6 (4:2-6)

DNTA 2130 Seminar for the Dental Assistant
This course covers the analysis of case studies during the clinical phase of practicum/clinical. Prerequisites: Reading level 6, Math level 6 (1:1-0)

DNTA 2250 Advanced Dental Assisting Applications
This class covers an advanced study of dental assisting expanded functions. (2:1-2)

DNTA 2252 Advanced Dental Radiology
This course covers advanced radiographic procedures on patients. (2:1-2)

DNTA 2267 Practicum - Dental Assisting/Assistant
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. Prerequisites: Reading level 6, Math level 6 (2:0-16)

DRAM 1120 Theatre Practicum I
This course is open to all students interested in the theatre. Credit is earned for acting, technical work, or other participation. Practicum in theatre with emphasis on technique and procedures with experience gained in play productions. Course may be taken a maximum of four times for credit. (1:0-6)

DRAM 1121 Theatre Practicum II
This course is open to all students interested in the theatre. Credit is earned for acting, technical work, or other participation. This is a practicum in theatre with emphasis on technique and procedures with experience gained in play productions. (1:0-6)

DRAM 1161 Musical Theatre I
This course is open to all students interested in musical theatre and offers credit for acting, technical work or other participation in a musical. (1:0-5)

DRAM 1162 Musical Theatre II
This course is open to all students interested in musical theatre and offers credit for acting, technical work or other participation in a musical. This course may be taken a maximum of four times. (1:0-5)

DRAM 1310 Theatre
This is an introduction to the basic practices, history, theories and styles of the theatre, and includes a survey of major fields of theatrical art. Elementary stage techniques are studied along with fundamental acting techniques. (3:3-0)

DRAM 1322 Stage Movement
This course covers principles, practices, and exercises in body techniques and stage movement; emphasis on character movement and body control. (3:3-0)

DRAM 1330 Stagecraft I
This is an introduction to the theory and practical applications of theatre lighting, set design and construction techniques. Students are provided the opportunity to participate in actual production situations as members of stage crews. Workshop hours will be scheduled as required. (3:3-0)

DRAM 1341 Stage Makeup
This course will instruct the student actor in the theory and practice of stage makeup, encompassing all forms of corrective and character application. Enrollment is open to all students without prerequisite. (3:3-0)

DRAM 1342 Introduction to Costuming
Costuming will focus on the design and building of stage costumes for production. Students will learn to sketch costume designs and will be responsible for a full costume plot for a production. Students will also learn to sew and construct costumes as well as work within a given costuming budget. (3:2-2)

DRAM 1351 Acting I
This is introduction to the basic skills and techniques of acting, with character analysis and development. It includes characterization and lab work in scenes from great dramatic literature. Rehearsal will be scheduled as required. (3:3-0)

DRAM 1352 Acting II
This is a continuation and consolidation of the gains made in DRAM 1351. Rehearsal will be scheduled as required. (3:3-0)

DRAM 2120 Theatre Practicum III
This course is open to all students interested in theatre. Credit is earned for acting, technical work, or other participation. Practicum in theatre with emphasis on technique and procedures with experience gained in play productions. (1:0-6)

DRAM 2121 Theatre Practicum IV
This course is open to all students interested in the theatre. Credit is earned for acting, technical work, or other participation. Practicum in theatre with emphasis on technique and procedures with experience gained in play productions. (1:0-6)
DRAM 2331 Stagecraft II
This is an advanced study of the theory and practical applications of theatre lighting, set design, construction techniques, and stage sound. Students are provided the opportunity to participate in actual production situations as members of stage crews. Workshop hours will be scheduled as required. (3:3-0)

DRAM 2336 Voice for the Theatre
This course is an application of the performer’s use of the voice as a creative instrument of effective communication. It encourages an awareness of the need for vocal proficiency and employs techniques designed to improve the performer’s speaking abilities. Course may include the study of I.P.A. and stage dialects. Prerequisite: Reading level 6 (3:3-0)

DRAM 2351 Acting III
This course includes the development of basic skills and techniques of acting for the purpose of exploring performance and its relationship to various acting environments. Emphasis is placed on acting choices that affect character and script analysis in regards to acting for the camera. A comparative study of stage acting vs. acting for the camera, using interdisciplinary approach of art, music, philosophy, and theater is included. Emphasis is also placed on methods of relaxation, communication, and the cybernetic approach to film/video acting. (3:3-2)

DRAM 2366 Introduction to Cinema: Film Appreciation I
This course includes a comparative study of the different genres of motion pictures, with an emphasis on the evaluation and appreciation of the motion picture structure within each genre. Film production, acting, writing, and special effects will be discussed. Full length movies will be watched in their entirety during a two-hour lab. Visual, oral, and written evaluations of each movie are required. (3:2-2)

DRAM 2367 Film Appreciation II
This course places emphasis on the analysis of the visual and aural aspects of selected motion pictures, dramatic aspects of narrative films, and historical growth and sociological effects of film as an art. (3:2-2)

ECON 1301 Introduction to Economics
This course is a study of consumer problems of the individual and of the family in the American economy. Areas of study may include: money and credit management, saving and personal investment, estate planning, wills, buying food and clothing, home ownership or rental, transportation, insurance, taxes and consumer protection. It is designed to expose non-business majors to a broad range of economic issues and policies. It may not be taken for credit toward any degree plan for Business Administration, Accounting, Finance, Economics. Prerequisites: Reading level 6, Writing level 6 and Math level 6 (3:3-0)

ECON 2301 Principles of Macroeconomics
This course covers an analysis of the economy as a whole including measurement and determination of national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, fiscal policy, and monetary policy. Prerequisites: Reading level 7, Writing level 7 and Math level 7 (3:3-0)

ECON 2302 Principles of Microeconomics
This is an analysis of the behavior of individual economic agents, including consumer behavior and demand, producer behavior and supply, price and output decisions by firms under various market structures, factor markets, market failures, and international trade. Prerequisites: Reading level 7, Writing level 7, Math level 7 (3:3-0)

EDUC 1300 Learning Framework
The purpose of EDUC 1300/PSYC 1300 is to enable you to develop effective academic behaviors for college success. The course includes a balance between the research and theory in the psychology of learning, cognition, and motivation and how to apply what you learn to becoming successful in a college setting. You will understand the factors that affect learning and how to apply what you learn to the development of successful learning strategies. You will use assessment instruments, such as learning inventories, to help you identify your own strengths and weaknesses as a strategic learner. You are ultimately expected to integrate and apply the learning skills discussed across your own academic courses and program and become an effective and efficient learner. As you develop these skills, you should be able to continually draw from the theoretical models and apply this to your courses and to your life. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

EDUC 1301 Introduction to the Teaching Profession
This is an enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. It provides opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse student populations. This course provides support from college and school faculty preferably in small cohort groups, for the purpose of introduction to and analysis of the culture of schooling and classrooms. The course will be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Student will complete 16
contact hours of field experience in P-12 classrooms. Prerequisites: Reading level 7 and Writing level 7 (3:3-1)

EDUC 2301 Introduction to Special Populations
This is an enriched, integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning. Students will be provided with opportunities to participate in early field observations of P-12 special populations. The course will be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Students will complete 16 contact hours of field experience with P-12 special populations. Prerequisites: Reading level 7 and Writing level 7 (3:3-1)

EECT 1307 Convergence Technologies
This course is a study of telecommunications convergence technologies including telephone, LAN, WAN, wireless, voice, video, and Internet protocol. Prerequisite: Reading level 4 (3:2-2)

EECT 1340 Telecommunications Transmission Media
This course introduces the fundamentals of telecommunications media, including installation, maintenance, and troubleshooting. Topics address media characteristics and connectorization. (3:2-2)

EECT 2337 Wireless Telephony Systems
This course covers principles of wireless/cellular telephony systems to include call processing, hand-off, site analysis, antenna radiation patterns, commonly used test/maintenance equipment and access protocol. Prerequisites: ITCC 1301 or ITNW 1325 (3:2-2)

EECT 2339 Communications Circuits
This course is a study of communications systems with emphasis on amplitude modulation, frequency modulation, phase modulation, and digital pulse modulation. There is discussion of several types of modulators, demodulators, receivers, transmitters, and transceivers. Prerequisite: CETT 1357 or department chair approval (3:2-2)

EECT 2367 Practicum, (Field Experience) Electronic Technology/Technician
This course offers practical general training and experience in the workplace. The College, with the employer, develops an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Prerequisite: CPMT 1345 or department chair approval (3:0-21)

EECT 2433 Telephone Systems
This is a study of installation and maintenance of systems including telephone sets, public switched networks, local exchanges, networks, two- and four-wire systems. Topics include tip and ringing requirements and digital transmission techniques. (4:4-0)

ELMT 1305 Basic Fluid Power
This is a basic fluid power course covering pneumatic and hydraulic systems, fluid power symbols, operating theory, components, and basic electrical and manual controls. Prerequisite: Reading level 4 (3:2-2)

ELMT 2333 Industrial Electronics
This is a study of devices, circuits, and systems primarily used in automatic manufacturing and/or process control, including computer controls and interfacing between mechanical, electrical, electronic, and computer equipment. It also presents programming schemes. Prerequisite: CETT 1357 or department chair approval (3:2-4)

ELMT 2335 Certified Electronics Technician Training
This course is a review of electronics concepts and principles in preparation for sitting for a certification examination administered by an outside organization or agency. Prerequisite: Reading level 4 (3:2-2)

ELMT 2337 Electronic Troubleshooting Service and Repair
This course is an In-depth coverage of electronic systems, maintenance, troubleshooting, and repair. Topics include symptom identification, proper repair procedures, repair checkout, and preventative maintenance. Emphasis on safety and use of test equipment. May be offered as a capstone course. (3:2-2)

ELMT 2341 Electromechanical Systems
This course covers application of electromechanical systems and emphasizes programmable control devices and solid state systems. Prerequisite: Reading level 4 (3:2-2)
ELMT 2351 Power Generation Fundamentals
This is a study of electrical power production including identification and function of power plant equipment. Topics include the introduction of power plant operations to include basic power plant cycles, basic power plant systems, boilers, turbines, generators, field devices and instrumentation, control and electrical systems. (3:3-1)

ELPT 1215 Electrical Calculations I
This is an introduction to mathematical applications utilized to solve problems in the electrical field. Topics include fractions, decimals, percentages, simple equations, ratio and proportion, unit conversions, and applied geometry. Electrical calculations to solve DC and AC electrical circuits are included. (2:2-0)

ELPT 1311 Basic Electrical Theory
This course covers the basic theory and practice of electrical circuits. It includes calculations as applied to alternating and direct current, and covers electrical terminology, circuit analysis and mathematical formulas as applied to direct and alternating current circuits. (3:2-2)

ELPT 1325 National Electric Code I
This is an introductory study of the National Electric Code (NEC) for those employed in the field requiring knowledge of the Code. Emphasis will be on wiring design, protection, methods, and materials; and equipment for general use, and basic calculations. (3:3-0)

ELPT 1345 Commercial Wiring
This course provides instructions in commercial wiring methods. It includes overcurrent protection, raceway panel board installation, proper grounding techniques, and associated safety procedures. The National Electrical Code (NEC) is used to size branch circuits, feeders, service equipment, outlet and junction boxes, and conduit; and installation of lighting and utilization of equipment. Students gain experience in safe workplace practices, the proper use of hand tools and ladders, interpreting blueprints and specifications, bending and installation of conduit, installation of armored cable, and wiring of devices, load centers and service equipment. (3:2-2)

ELPT 1351 Electrical Machines
This is a study of direct current (DC) motors, single-phase and polyphase alternating current (AC) motors, generators, and alternators. Emphasis will be on construction, characteristics, efficiencies, starting, and speed control. Prerequisite: CETT 1302 or ELPT 1311 (3:2-2)

ELPT 1357 Industrial Wiring
This course covers wiring methods used for industrial installations. It includes motor circuits, raceway and bus way installations, proper grounding techniques, and associated safety procedures. (3:2-2)

ELPT 1429 Residential Wiring
This is a study of wiring methods for single family and multifamily dwellings that includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures. (4:3-3)

ELPT 1440 Master Electrician Exam Review I
This is an introductory study of electrical theory, code calculations, and interpretations applicable to becoming a master electrician. It emphasizes residential, commercial, and industrial installations using the current edition of the National Electrical Code (NEC) and local ordinances. Prerequisite or co-requisite: ELPT 2325 or approval of department chair (4:4-0)

ELPT 1441 Motor Control
This is study of operating principles dealing with solid-state and conventional controls along with their practical applications. The course includes braking, jogging, plugging, safety interlocks, wiring, and schematic diagram interpretations. Prerequisite: CETT 1302 or ELPT 1311 or department chair approval (4:3-3)

ELPT 2215 Electrical Calculations II
This is a further study of mathematical applications used to solve problems in the electrical field. The course includes fractions, decimals, ratio and proportion, applied geometry, and utilization of right triangles to calculate electrical values. It also includes power factor correction, fault currents, neutral currents, conductor ampacity, and other advanced calculations. Prerequisite: ELPT 1215 or approval of department chair (2:2-0)

ELPT 2301 Journeyman Electrician Exam Review
This course provides preparation for journeyman electricians with emphasis on calculations and the National Electrical Code (NEC). Special attention is directed toward test taking skills and practice exams as they apply to the local area journeyman exams. Prerequisite: ELPT 2325 or approval of department chair (3:3-0)

ELPT 2305 Transformers and Motors
This course focuses on the operation of single- and three-phase motors and transformers. It includes transformer banking, power factor correction, and protective devices. Also included are lessons on three-phase power concepts, transformer and motor connections, transformer and motor metering, and transformer and motor troubleshooting theory. Prerequisite: CETT 1302 or ELPT 1311 or approval of the department chair (3:3-1)
ELPT 2319 Programmable Logic Controllers I
This course covers the fundamental concepts of programmable logic controllers, principles of operation, and numbering systems as applied to electrical controls. It includes history, terminology, typical applications, hardware and software, and incorporates lab and project activities that address operating, monitoring programming, troubleshooting, and repairs of PLC controlled lab trainers as well as actual industrial equipment. (3:2-2)

ELPT 2325 National Electrical Code II
This course includes in-depth coverage of the National Electrical Code (NEC) for those employed in fields requiring knowledge of the Code, with an emphasis on wiring protection and methods, special conditions, and advanced calculations. Prerequisite: ELPT 1325 or department chair approval (3:3-0)

ELPT 2337 Electrical Planning and Estimating
This course covers planning and estimating for residential, commercial and industrial wiring systems. Statistical procedures of various methods of estimating are introduced along with a variety of electrical techniques. Prerequisite: ELPT 2325 or approval of department chair (3:2-2)

ELPT 2339 Electrical Power Distribution
This is a study of design, operation, and technical details of modern power distribution systems including generating equipment, transmission lines, plant distribution, and protective devices. Includes calculations of fault current, system load analysis, rates, and power economics. Prerequisites: CETT 1302 or ELPT 1311, ELPT 2305 (3:3-1)

ELPT 2343 Electrical System Design
This is a course in electrical design of commercial and/or industrial projects, including building layout, types of equipment, placement, sizing of electrical equipment, and all electrical calculations according to the requirements of the National Electrical Code (NEC). Prerequisite: ELPT 2325 or approval of department chair (3:3-0)

ELPT 2364 Practicum-Electrical and Power Transmission Installation/Installer, General
This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, College, and 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. The course may be repeated if topics and learning outcomes vary. Prerequisite: Approval of department chair (3:0-21)

ELPT 2449 Industrial Automation
This is an advanced study of electrical control systems, applications, and interfacing utilized in industrial automation. Ladder logic diagramming and programmable logic controllers are covered as they apply to electrical controls. Prerequisite: ELPT 1441 (4:3-3)

EMSP 1160 Clinical-Emergency Medical Technician
This is 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. Specific detailed learning objectives are developed for the course and continuous enrollment may be required until these are met. Orientation is required prior to the start of the course. Co-requisite: EMSP 1501 and departmental approval. Orientation is required prior to the start of the course. (1:0-5)

EMSP 1191 Special Topics in Emergency Medical Technology/Technician
This course covers topics that address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. (1:0-2)

EMSP 1260 Clinical - Advanced Emergency Medical Technology
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by a clinical professional. Specific detailed learning objectives are developed for the course. Continuous enrollment may be required until these objectives are met. Orientation is required prior to the start of the course. Co-requisites: EMSP 1338, 1355, 1356 and departmental approval. (2:0-8)

EMSP 1338 Introduction to Advanced Practice
This course covers fundamental elements associated with emergency medical services to include preparatory practices, pathophysiology, medication administration, and related topics. Prerequisites: EMSP 1160, EMSP 1501, BIOL 2301, BIOL 2101 and departmental approval. Co-requisites: EMSP 1355, EMSP 1356, and EMSP 1260. Reading level 7, Writing level 7 and Math level 6. (3:2-2)
EMSP 1355 Trauma Management
This is a detailed study of the knowledge and skills in the assessment and management of patients with traumatic injuries. Students must meet the expected outcomes and terminal objectives of the class. Continuous enrollment may be required until these are met. Prerequisites: EMSP 1160, EMSP 1501, BIOL 2301, BIOL 2101 and departmental approval. Co-requisites: EMSP 1338, EMSP 1356, and EMSP 1260. Reading level 7, Writing level 7, Math level 6. (3:2-2)

EMSP 1356 Patient Assessment and Airway Management
This course covers knowledge and skills required to perform patient assessment, airway management, and artificial ventilation. Students must meet the expected outcomes and terminal objectives of the class. Continuous enrollment may be required until these are met. Prerequisites: EMSP 1160, EMSP 1501, BIOL 2301, BIOL 2101 and departmental approval. Co-requisites: EMSP 1338, EMSP 1355, and EMSP 1260. Reading level 7, Writing level 7, and Math level 6. (3:2-2)

EMSP 1501 Emergency Medical Technician
This course provides the preparation for certification as an Emergency Medical Technician (EMT). Students must meet the expected outcomes and terminal objectives of the class. Continuous enrollment may be required until these are met. Prerequisites: Reading level 6, Writing level 6, Math level 4. (5:3-7)

EMSP 2161 Clinical - EMT Paramedic I
This is 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. Specific detailed learning objectives are developed for the course. Continuous enrollment may be required until these are met. Orientation is required prior to the start of the course. Co-requisites: EMSP 2348, 2444 and departmental approval. (1:0-4)

EMSP 2162 Clinical - EMT Paramedic II
This is 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. Specific detailed learning objectives are developed for the course. Continuous enrollment may be required until these are met. Orientation is required prior to the start of the course. Co-requisites: EMSP 2330, 2344 and departmental approval. (1:0-5)

EMSP 2168 Practicum/Field Experience - Paramedic
This is a practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. Practical/field experiences are unpaid external learning experiences. Specific detailed learning objectives are developed for the course and continuous enrollment may be required until these are met. Orientation is required prior to the start of the course. Co-requisite: EMSP 2243 or departmental approval. (1:0-10)

EMSP 2243 Assessment Based Management
This course is a summative experience covering comprehensive, assessment-based patient care management for the paramedic level. Students must meet the expected outcomes and terminal objectives of the class. Continuous enrollment may be required until these are met. Prerequisites: EMSP 2434, 2330, and departmental approval. Reading level 7, Writing level 7 and Math level 7. (2:0-4)

EMSP 2306 Emergency Pharmacology
This is a study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages. Students must meet the expected outcomes and terminal objectives of the class. Continuous enrollment may be required until these are met. Prerequisites: EMSP 1338, EMSP 1355, EMSP 1356, EMSP 1260, BIOL 2302, BIOL 3102 and departmental approval. Reading level 7, Writing level 7, and Math level 7. (3:3-0)

EMSP 2330 Special Populations
This course covers knowledge and skills necessary to assess and manage ill or injured patients in diverse populations to include neonatology, pediatrics, geriatrics, and other related topics. Students must meet the expected outcomes and terminal objectives of the class. Continuous enrollment may be required until these are met. Prerequisites: EMSP 2306, 2444 and departmental approval. Reading level 7, Writing level 7, and Math level 7. (3:2-3)

EMSP 2348 Emergency Pharmacology
This is a course covering utilization of medications in treating emergency situations. The course is designed to complement EMSP 2444 Cardiology, EMSP 2330 Special Population, and EMSP 2434 Medical Emergencies courses. The curriculum is based on the National Emergency Medical Services Educational Standards for Paramedic. Students must meet the expected outcomes and terminal objectives of the class. Continuous enrollment may be required until these are met. Prerequisites: EMSP 1338, 1355, 1356 and departmental approval. Reading level 7, Writing level 7, and Math level 7. Forty-eight lecture hours (3:3-0)
**EMSP 2352 Emergency Medical Services Research**
This course covers primary and/or secondary research in current and emerging issues in EMS. Basic research principles, scientific inquiry, and interpretation of professional literature are emphasized. (3:3-1)

**EMSP 2434 Medical Emergencies**
This course covers knowledge and skills in the assessment and management of patients with medical emergencies, including medical overview, neurology, gastroenterology, immunology, pulmonology, urology, hematology, endocrinology, toxicology, and other related topics. Students must meet the expected outcomes and terminal objectives of the class. Continuous enrollment may be required until these are met. Prerequisites: EMSP 2306, 2444 and departmental approval. Reading level 7, Writing level 7, Math level 7. (4:4-1)

**EMSP 2444 Cardiology**
This course covers assessment and management of patients with cardiac emergencies. Includes single and multiple-lead ECG interpretation. Students must meet the expected outcomes and terminal objectives of the class. Continuous enrollment may be required until these are met. Prerequisites: EMSP 1338, EMSP 1355, EMSP 1356, EMSP 1260, BIOL 2302, BIOL 3102 and departmental approval. Reading level 7, Writing level 7, and Math level 7. (4:3-4)

**ENER 1240 Employee Success in Energy Industry**
This course is a study of successful employee characteristics and employer expectations in the energy industry. Topics include benefits, career management, communications, and personal financial management. It also addresses values, inclusion, and community/environmental roles. Prerequisite: ENGL 0107 or writing score within defined range (3:3-0)

**ENER 1330 Basic Mechanical Skills for Energy**
This course covers basic mechanical skills using hand and power tools in an industrial environment. Topics include tool use and maintenance, lubrication, measuring, threads and fasteners, bench works, basic mechanical drawings, and basic shop calculations (English and metric). Also, addresses rigging procedures to include chain falls, jacks, cable, fulcrum, port-a-power, and come-alongs. (3:2-2)

**ENGL 0107 Developmental Writing (NCBO)**
This course is a study of the development of fundamental writing skills such as idea generation, organization, style, utilization of standard English, and revision. (1:0.5-0.5)

**ENGL 0306 Beginning Writing Skills**
This course is designed for systematic study and review of applicable grammatical forms and proper punctuation in a gradual progression from sentence structure to paragraph writing. The course offers opportunities to develop basic writing skills and to enhance critical thinking. The course includes one hour of lab weekly. This course is not applicable to any degree. Prerequisite: Writing level 4. (3:3-1)

**ENGL 0307 Preparation for College English**
This course is a comprehensive review of the fundamentals of composition and grammar with emphasis on paragraph writing, beginning theme construction, and mechanical and syntactical correctness. It provides students with opportunities to develop critical reading and writing skills through reading and discussing the works of professional writers. This course is not applicable to any degree. Prerequisite: A grade of C or above in ENGL 0306 or writing score within defined range (3:3-0)

**ENGL 0308 Writing and Grammar: English for Speakers of Other Languages**
This course reviews the fundamentals of composition and grammar with emphasis on logical paragraph and essay construction, clear and idiomatic English, appropriate syntactical features, and mechanical correctness. In addition, the course provides for the development of critical reading, thinking, writing, and speaking skills through the analysis and discussion of professional essays. Laboratory sessions provide group and individual practice with a variety of second language problem areas. This course is not applicable to any degree. Prerequisite: A grade of C or above in ENGL 0306 or writing score within defined range (3:3-0)

**ENGL 1301 Composition I**
This course provides an intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis is on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus is on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

**ENGL 1302 Composition II**
This course provides an intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis is on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions. Prerequisite: ENGL 1301 or equivalent (3:3-0)
ENGL 2307 Creative Writing
This elective composition course provides an opportunity for students to create imaginative works for pleasure and publication within the supportive atmosphere of a writing workshop. The workshop may emphasize a single genre, such as poetry, fiction, or drama. Alternatively, the workshop may allow individual students to write original compositions in genres of their interest in response to classroom assignments. Students analyze significant contemporary literature, finding models of successful forms and effective technique. In addition, they critique the work of classmates. Literary theory and strategies for publication are discussed. Students are also encouraged to participate as editors of the college literary magazines and to submit their best work for publication. This three-credit-hour course may be taken once for college credit. Students may elect a maximum of six hours of creative writing courses for college credit (English 1111, English 2307, and English 2308). English 2307 may also be taken through Continuing Education as a non-credit course. Prerequisite: Writing level 7 (3:3-0)

ENGL 2308 Creating Writing Studies
This elective composition course provides an opportunity for students to create imaginative works for pleasure and publication within the supportive atmosphere of a writing workshop. The workshop may emphasize a single genre, such as poetry, fiction, or drama. Alternatively, the workshop may allow individual students to specialize on projects longer than those typically covered in ENGL 2307 within such literary areas as personal and narrative essay, poetry, prose fiction or drama. Students analyze significant contemporary literature, finding models of successful forms and effective techniques. Additionally, students critique the work of classmates. Literary theory and strategies for publication are discussed. Students are also encouraged to participate as editors for the college literary magazines and to submit their best work for publication. This three-credit-hour course may be taken once for college credit. Students may elect a maximum of six hours of creative writing courses for college credit (English 1111, English 2307, and English 2308). English 2307 may also be taken through Continuing Education as a non-credit course. Prerequisite: ENGL 1301 (3:3-0)

ENGL 2311 Technical and Business Writing
This course is an intensive study of and practice in professional settings. It focuses on the types of documents necessary to make decisions and take action on the job, such as proposals, reports, instructions, policies and procedures, email messages, letters, and descriptions of products and services. Practice individual and collaborative processes involved in the creation of ethical and efficient documents. Prerequisite: ENGL 1301 (3:3-0)

ENGL 2322 British Literature I
This is a survey of the development of British literature from the Anglo-Saxon period to the 18th Century. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301 (3:3-0)

ENGL 2323 British Literature II
This is a survey of the development of British literature from the Romantic period to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301 (3:3-0)

ENGL 2327 American Literature I
This is a survey of American literature from the period of exploration and settlement through the Civil War. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite: ENGL 1301 (3:3-0)

ENGL 2328 American Literature II
This is a survey of American literature from the Civil War to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite: ENGL 1301 (3:3-0)

ENGL 2332 World Literature I
This is a survey of world literature from the ancient world through the 16th century. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301 (3:3-0)

ENGL 2333 World Literature II
This is a survey of world literature from the 17th century to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301 (3:3-0)

ENGL 2341 Literature and Film
This course covers the study of one or more literary genres including, but not limited to, fiction, drama and film are included in this course. The course offers an analytical approach to both literature and film. Through various methods, students will learn conceptual frameworks and vocabulary for understanding and
explaining how films and literature enhance our perception of society and inform our awareness and judgment. The course strives to help students critically approach culture by analyzing literary works. Prerequisite: ENGL 1301 (3:3-0)

**ENGL 2351 Mexican-American Literature**
This is a survey course of Mexican-American/Chicano literature including fiction, non-fiction, poetry, and drama. Prerequisite: ENGL 1301 (3:3-0)

**ENGL 2370 Selected Studies in Literature**
This course offers students opportunities for intensive analysis of literary works that may be unified by theme, period, or subject matter. Students will be asked to complete a variety of writing assignments including essay examinations, short compositions, and investigative papers. The course may be repeated a maximum of two times for transfer credit provided the repeated course covers a different topic. Prerequisite: ENGL 1301 (3:3-0)

**ENGL 2389 Academic Cooperative in Composition**
This is an instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of English language and literature. Prerequisite or co-requisite: ENGL 1302, a professor’s written recommendation, and a writing sample. Reading level 7, Writing level 7 (3:1-8)

**ENGR 1201 Introduction to Engineering**
This is an introduction to the engineering profession with emphasis on technical communication and team-based engineering design. Note: Some mechanical engineering programs will accept the course ENGR 1201 for transfer credit and as applicable to the engineering major, while others will accept the course for transfer credit only. The student is advised to check with the school to which he or she wants to transfer for specific applicability of this course to the engineering major. Prerequisite: Reading level 7, MATH 1314 or higher (2:1-3)

**ENGR 1304 Engineering Graphics I**
Engineering Graphics I introduces computer-aided drafting, using CAD software and sketching to generate two- and three-dimensional drawings based on the conventions of engineering graphical communication. Topics include spatial relationships, multi-view projections and sectioning, dimensioning, graphical presentation of data, and fundamentals of computer graphics. Prerequisite: MATH 1314 or higher. (3:2-2)

**ENGR 2105 Electrical Circuits I Laboratory**
In the laboratory component of Circuits I, students conduct experiments supporting theoretical principles presented in ENGR 2305 involving DC and AC circuit theory, network theorems, time, and frequency domain circuit analysis. Students are introduced to principles and operations of basic laboratory equipment and to writing laboratory reports. Co-requisite: ENGR 2305. (1:0-3)

**ENGR 2301 Engineering Mechanics - Statics**
This course introduces the basic theory of engineering mechanics, using calculus, involving the description of forces, moments, and couples acting on stationary engineering structures; equilibrium in two and three dimensions; free-body diagrams; friction; centroids; centers of gravity; and moments of inertia. Prerequisite: PHYS 2325 and PHYS 2125. Co-requisite MATH 2414. (3:3-0)

**ENGR 2302 Engineering Mechanics - Dynamics**
This course is a study of basic theory of engineering mechanics, using calculus, involving the motion of particles, rigid bodies, and systems of particles; Newton’s Laws; work and energy relationships; principles of impulse and momentum; application of kinetics and kinematics to the solution of engineering problems. Prerequisite: ENGR 2301. (3:3-0)

**ENGR 2304 Programming for Engineers**
This course introduces programming principles and techniques for matrix and array operations, equation solving, and numeric simulations applied to engineering problems and visualization of engineering information; platforms include spreadsheets, symbolic algebra packages, engineering analysis software, and laboratory control software. Prerequisite: MATH 2413. (3:3-0)

**ENGR 2305 Electrical Circuits I**
Circuits I introduces the principles of electrical circuits and systems, including basic circuit elements (resistance, inductance, mutual inductance, capacitance, independent and dependent controlled voltage, and current sources); the topology of electrical networks; Kirchhoff’s laws; node and mesh analysis; DC circuit analysis; operational amplifiers; transient and sinusoidal steady-state analysis; AC circuit analysis; first- and second-order circuits; Bode plots; and use of computer simulation software to solve circuit problems. Prerequisites: PHYS 2326 and PHYS 2126; Co-requisites: MATH 2320 and ENGR 2105. (3:3-0)
**ENGR 2308 Engineering Economics**
The student will utilize methods for determining the comparative financial desirability of engineering alternatives, and will be provided the basic tools required to analyze engineering alternatives in terms of their worth and cost, an essential element of engineering practice. The student is introduced to the concept of the time value of money and the methodology of basic engineering economy techniques. The course will address some aspects of sustainability and will provide the student with the background to enable them to pass the Engineering Economy portion of the Fundamentals of Engineering exam. Prerequisite: MATH 2413 (3:3-0)

**EPCT 1301 Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics**
This course covers minimum certification requirements in the Code of Federal Regulations (CFR) for a hazardous waste site worker as found in 29 CFR 1910.120 and 40 CFR 264.16. Students must make a grade of “C” or better in order to be eligible for HAZWOPER certification. Prerequisites: EPCT 1307. Reading level 6, Writing level 6, Math level 6 (3:3-1)

**EPCT 1305 Environmental Regulations Overview**
This is an introduction to the history of the environmental movement, including basic requirements for compliance with the environmental regulations. Prerequisites: EPCT 1307. Reading level 6, Writing level 6, Math level 6 (3:3-0)

**EPCT 1307 Introduction to Environmental Safety and Health**
This is a historical overview of environmental safety and health. The emphasis is on the use of occupational safety and health codes, and development of knowledge and skills to reinforce the attitudes and behaviors required for safe and environmentally sound work habits. It covers safety, health, and environmental issues in the performance of all jobs, tasks, and regulatory compliance issues. (3:3-0)

**EPCT 1311 Introduction to Environmental Science**
This is an overview of environmental science and current global concerns, and a brief history of environmental ethics, resource use, and conservation. Includes discussion of fundamental principles of resource economics and environmental health. Prerequisites: EPCT 1307. Reading level 6, Writing level 6, Math level 6 (3:3-0)

**EPCT 1313 Contingency Planning**
This is 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. Prerequisites: EPCT 1307. Reading level 6, Writing level 6, Math level 6 (3:3-0)

**EPCT 1341 Principles of Industrial Hygiene**
This course covers concepts in threshold limits, dose response, and general recognition of occupational hazards, including sampling statistics, calibration, and equipment use. Includes a study of the control of occupational hazards and sample collection and evaluation methods. Prerequisites: EPCT 1307, CHEM 1311 and CHEM 1111, and MATH 1314 or MATH 1333, Reading level 6, Writing level 6, Math level 6 (3:3-0)

**EPCT 2333 Environmental Toxicology**
This is a review of the research determining the systematic health effects of exposures to chemical. Includes discussion of risk factors, routes of entry, control measures, and acute and chronic effects. Prerequisites: EPCT 1307, CHEM 1311 and CHEM 1111, and MATH 1314 or MATH 1333, Reading level 6, Writing level 6, Math level 6 (3:3-0)

**ESOL 0110 English as a Second Language (NCBO)**
This course is a computer based, student self-paced practice to develop reading, grammar, writing, listening and/or speaking skills for non-native speakers and to prepare students to function in educational, vocational and/or personal English language contexts. This course may be repeated to improve proficiency. (1:1:0)

**ESOL 0311 Introductory Listening and Speaking**
This course focuses on developing basic social and pre-academic speaking and listening skills which include pronouncing, describing, giving directions, and comprehending oral directions. This course does not apply toward any degree. Prerequisite: standardized test of English language proficiency. (3:3-1)

**ESOL 0351 Introductory Composition**
This course focuses on strategies and techniques of writing and composition. Open only to non-native speakers. (3:3-0)

**ESOL 0362 Intermediate ESOL Oral Communication**
This course develops listening and speaking skills in speakers of languages other than English and prepares them to function in educational, vocational and/or personal English-speaking contexts. Prerequisite: ESOL 0311 or meet the required score on a standardized test of English language proficiency. This is an intermediate-level course. (3:3-1)

**ESOL 0363 Advanced ESOL Oral Communication**
This course develops listening and speaking skills in speakers of language other than English and prepares them to function in educational, vocational and/or personal English-speaking contexts. Prerequisite: ESOL 0362 Intermediate Oral Communication for Non-Native Speakers or meet the required score on a standardized test of English language proficiency. This is an advanced-level course. (3:3-1)
ESOL 0372 Intermediate Reading and Writing for Non-Native Speakers
This course focuses on strategies and techniques of writing and composition and develops reading proficiency, vocabulary, and writing and grammar skills for academic, career, or personal purposes in speakers of languages other than English and prepares them to function in a multicultural and multilingual society. Prerequisite: ESOL 0351 and 0321 or meet the required score on a standardized test of English language proficiency. This is an intermediate-level course. (3:3-1)

ESOL 0373 Advanced Reading and Writing for Non-Native Speakers
This course focuses on strategies and techniques of writing and composition and develops reading proficiency, vocabulary, and writing and grammar skills for academic, career, or personal purposes in speakers of languages other than English in order to prepare them to function in a multicultural and multilingual society. Prerequisite: ESOL 0372 or meet the required score on a standardized test of English language proficiency. This is an advanced-level course. (3:3-1)

ESOL 0382 Intermediate Grammar for Non-Native Speakers
This course focuses on standard English grammar usage for academic purposes. Open only to non-native speakers. Prerequisite: Meet the required score on standardized test of English language proficiency. This is an intermediate-level course. (3:3-1)

ESOL 0383 Advanced Grammar for Non-Native Speakers
This course focuses on standard English grammar usage for academic purposes. Open only to non-native speakers. Prerequisite: ESOL 0382 or meet the required score on a standardized test of English language proficiency. This is an advanced-level course. (3:3-1)

ETWR 1302 Introduction to Technical Writing
This course introduces the principles, techniques, and skills needed for scientific, technical, and business writing. This course is designed for technical students. Prerequisite: Reading level 4 (3:3-0)

ETWR 2305 Intermediate Technical Report Writing
This course focuses on essential phases of developing effective technical process documents. Emphasizing the roles of those involved in developing documentation reports, the course also includes practice in developing the reporting deliverables needed for complete and successful description of processes. This course is designed for technical students. Prerequisites: Reading level 6, Writing level 6 (3:3-0)

FCE 1305 Fuel Cell and Alternative/Renewable Energy
This course is on the types and applications of alternative/renewable energy sources. It emphasizes fuel cell applications and processes, reformation of fuels, heat transfer, chemical reaction, power conditioning, combined heat and power, and distributed generation systems. Prerequisites or co-requisites: CETT 1303 and Reading level 4 (3:2-2)

FDNS 1168 Practicum - Dietetics/Dietitian (RD)
This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, College, and 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. Program director approval. Dietary Manager MSA (MDIET) students must enroll in DITA 1400 concurrently. (1:0-10)

FDNS 1169 Practicum-Dietetics/Dietitian (RD)
This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, College, and 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. Program director approval required. Dietary Manager MSA (MDIET) students must enroll in DITA 1401 concurrently. (1:0-10)

FDNS 1309 Nutrition in the Community
This is a study of the nutritional status of populations at the national, state, and local community levels. It includes socioeconomic cultural and psychological influences on eating behavior, national and state health objectives, marketing strategies for objective implementation, and community nutrition program serving risk-group populations. Basic teaching/counseling methods for the nutrition education of small groups and individual clients/patients is also covered. (3:3-0)

FIRS 1103 Firefighter Agility and Fitness Preparation
This course is a study on physical ability testing methods. Rigorous training in skills and techniques needed in typical fire department physical ability tests. 48 lab hours. (1:0-3).
FIRS 1301 Firefighter Certification I
This is one in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification II, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION (TCFP)*** 32 lecture hours, 48 hours of skills development. Firefighter Training Academy. (3:2-3)

FIRS 1313 Firefighter Certification III
This is one in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** 48 lecture hours, 16 hours of skills development. Firefighter Training Academy. (3:3-1)

FIRS 1319 Firefighter Certification IV
This is one in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** 32 lecture hours, 48 hours of skills development. Firefighter Training Academy. (3:2-3)

FIRS 1323 Firefighter Certification V
This is one in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** 32 lecture hours, 64 hours of skills development. Firefighter Training Academy. (3:2-4)

FIRS 1329 Firefighter Certification VI
This is one in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** 48 lecture hours, 16 hours of skills development. Firefighter Training Academy. (3:3-1)

FIRS 1333 Firefighter Certification VII
This is one in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** 16 lecture hours, 80 hours of skills development. Firefighter Training Academy. (3:1-5)

FIRS 1407 Firefighter Certification II
This is one in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** 32 lecture hours, 80 hours of skills development. Firefighter Training Academy. (4:2-5)

FIRS 1423 Firefighter Certification V
This is one in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification II, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** 48 lecture hours, 48 hours of skills development. Firefighter Training Academy. Prerequisite: Reading level 6 (3:3-3)
**FIRS 1433 Firefighter Certification VII**
This is one in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification II, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION (TCFP)*** 32 lecture hours, 80 hours of skills development. Firefighter Training Academy. Prerequisite: Reading level 6 (4:2-5)

**FIRT 1303 Fire and Arson Investigation I**
This is an in-depth study of basic fire and arson investigation practices, with an emphasis on fire behavior principles related to fire cause and origin determination. This includes 48 lecture hours and 16 hours of skills development. (3:3-1)

**FIRT 1309 Fire Administration I**
This is an introduction to the organization and management of a fire department and the relationship of government agencies to the fire service, with an emphasis on fire service leadership from the perspective of the company officer. It includes 48 lecture hours. (3:3-0)

**FIRT 1315 Hazardous Materials I**
This is a study of the chemical characteristics and behavior of various materials. Topics include storage, transportation, handling hazardous emergency situations, and the most effective methods of hazard mitigation. It is the equivalent to Hazardous Materials Operations Level Training, and includes 48 lecture hours, and 16 hours of skills development. (3:3-1)

**FIRT 1319 Firefighter Health and Safety**
This is a study of firefighter occupational safety and health in emergency and non-emergency situations. This course meets Fire and Emergency Services Higher Education (FESHE) Model Curriculum core requirements. It includes 48 lecture hours. (3:3-0)

**FIRT 1327 Building Construction for the Fire Service**
This course covers the exploration of building construction and design related to fire spread suppression in various structures, and examination of potential hazards resulting from construction practices and materials. The student will identify types of building construction: recognize hazards associated with construction practices; identify fire resistive levels of building materials; and recognize signs of potential structural collapse. It includes 48 lecture hours. (3:3-0)

**FIRT 1338 Fire Protection Systems**
This course is a study of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. This course meets Fire and Emergency Services Higher Education (FESHE) Model Curriculum core requirements. Includes 48 lecture hours. (3:3-0)

**FIRT 1342 Fire Officer I**
Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer I certification. **THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION** (3:3-1)

**FIRT 1343 Fire Officer II**
Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer II certification. **THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION** (3:3-1)

**FIRT 1345 Hazardous Materials II**
This is an in-depth study of mitigation practices and techniques to effectively control hazardous materials spills and leaks. It is the equivalent to Hazardous Materials Technician Level Training, and includes 48 lecture hours, and 16 hours of skills development. (3:3-1)

**FIRT 1349 Fire Administration II**
This is an in-depth study of fire service management as pertaining to budgetary requirements, administration, organization of divisions within the fire service, and relationships between the fire service and outside agencies. It includes 48 lecture hours. Prerequisite: FIRT 1309 (3:3-0)

**FIRT 1370 Technical Rope Rescue I**
This is an in-depth study of Technical Rope Rescue including extensive skills development. Upon successful completion of this course students should be able to identify, describe, and demonstrate rope rescue and confined space rescue procedures at the Technical Rescuer-Level I level. The content of this course meets and/or exceeds the job performance requirements specified in National Fire Protection Association 1006- Standard for Technical Rescuer Professional Qualifications, 2008 Edition including the specialty areas of rope rescue and confined space rescue. This course may be repeated in order to maintain student skill proficiency. (3:2-3)
FIRT 1408 Fire Inspector I
This course is one in a series of three courses required for Fire Inspector certification. Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Inspector I. **THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION** (4:3-3)

FIRT 1440 Fire Inspector II
This course is one in a series of three courses required for Fire Inspector certification. Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Inspector II and Plan Examiner I. **THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION** (4:3-3)

FIRT 2112 Hazardous Materials Incident Commander
This course meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Hazardous Materials Incident Commander certification. **THIS COURSE MAY BE OFFERED ONLY BY AN INSTITUTION CERTIFIED AS TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION.** (1:1-1)

FIRT 2305 Fire Instructor I
This course prepares fire and emergency services personnel to deliver instruction from a prepared lesson plan, including the use of instructional aids and evaluation instruments to meet the Texas Commission on Fire Protection requirements for Fire Instructor I certification. It includes 48 lecture hours (3:3-0)

FIRT 2309 Firefighting Strategies and Tactics I
This course covers analysis of the nature of fire problems and selection of initial strategies and tactics including an in-depth study of efficient and effective use of manpower and equipment to mitigate the emergency. It includes 48 lecture hours (3:3-0)

FIRT 2331 Firefighting Strategies and Tactics II
This is a continuation of Firefighting Strategies and Tactics I with an emphasis on use of incident command in large-scale command problems and other specialized fire problems. It includes 48 lecture hours. Prerequisite: FIRT 1311 (3:3-0)

FIRT 2333 Fire and Arson Investigation II
This is a continuation of Fire and Arson Investigation I. Topics include reports, courtroom demeanor, and expert witnesses. Forty-eight lecture hours. Sixteen hours of skills development. (3:3-1)

FIRT 2345 Hazardous Materials III
This is a 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. It includes 48 lecture hours and 16 hours of skills development. (3:3-1)

FIRT 2351 Company Fire Officer
This is a capstone course covering fire ground operations and supervisory practices. It includes performance evaluation of incident commander, safety officer, public information officer, and shift supervisor duties and 48 lecture hours. (3:3-0)

FIRT 2356 Fire Officer III
This course meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer III certification. **THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION.** (3:3-1)

FIRT 2357 Fire Officer IV
This course meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer IV certification. **THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION.** (3:3-1)

FIRT 2359 Fire Instructor III
This course meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Instructor III certification. **THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION.** (3:3-1)

FIRT 2370 Technical Rope Rescue II
This is an in-depth study of Technical Rope Rescue including extensive skills development. Upon successful completion of this course, students should be able to identify, describe, and demonstrate rope rescue and confined space rescue procedures at the Technical Rescuer-Level I level. The content of this course meets and/or exceeds the job performance requirements specified in National Fire Protection Association 1006-Standard for Technical Rescuer Professional Qualifications, 2008 Edition including the specialty areas of rope rescue and confined space rescue. This course may be repeated in order to maintain student skill proficiency. Prerequisite: FIRT 1370 (3:2-3)
FITT 1237 Personal Training
This course is a study of the aspects of one-on-one training, including marketing, program development, legal aspects, documentation, training methodologies, and business considerations. Emphasis is on the development of safe and enjoyable individualized training sessions. (2:2-0)

FITT 1303 Fitness Event Planning and Promotion
This course is a study of the practical aspects of developing and scheduling group exercise fitness classes, including recreational activities, competitive activities, and promotion of exercise and non-exercise activities. Emphasis is on the design of safe, enjoyable activities. (3:3-0)

FITT 2301 Lifestyle Change for Wellness
This course is a study of the components of weight control, healthy nutrition, smoking cessation, stress management and other current trends will be covered. Included are techniques in behavior modification, motivation, teaching and counseling. Prerequisite: HPRS 1202. (3:3-0)

FITT 2309 Theory of Exercise Program Design and Instruction
The study of health related components of physical fitness including cardiorespiratory endurance, muscular strength, muscular endurance, flexibility and body composition. Topics include the theoretical basis underlying physical fitness; instructional techniques for fitness development; and methods for leading an exercise session, including design, instruction and evaluation. (3:2-3)

FITT 2413 Exercise Science
This course is a survey of scientific principles, methodologies, and research as applied to exercise and physical fitness. Emphasis on physiological responses and adaptations to exercise. Topics include basic elements of kinesiology, biomechanics, motor learning, and the physical fitness industry. (4:4-0)

FITT 2471 Kinesiology and Biomechanics
This course is a continuation of the study of scientific principles, methodologies, and research as applied to exercise and physical fitness. Emphasis is on physiological responses and adaptations to exercise. Prerequisite: FITT 2413. (4:3-2)

FREN 1411 Beginning French I
This course is basic French language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the beginner level. Prerequisite: Reading level 6 (4:3-2)

FREN 1412 Beginning French II
This course is a continued development of basic French language skills in listening, speaking, reading, and writing within a cultural framework. Students acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the high beginner to low intermediate level. Prerequisite: FREN 1411 (4:3-2)

FREN 2311 Intermediate French I
This course is designed to give the student who has completed FREN 1411 and 1412 increased fluency and confidence in the use of the French language. Although no lab is scheduled, students will have access to tapes and other lab materials and will be encouraged to use these supplemental learning tools. Prerequisites: FREN 1411-1412 (3:3-0)

FREN 2312 Intermediate French II
This course is a continuation of FREN 2311. Although no lab is scheduled, students will have access to tapes and other lab materials and will be encouraged to use these supplemental learning tools. Prerequisite: FREN 2311 (3:3-0)

GAME 1303 Introduction to Game Design and Development
This course is an introduction to electronic game development and game development careers and includes an examination of history and philosophy of games, the game production process, employee factors for success in the field, and current issues and practices in the game development industry. The course includes designing and implementing simple computer games. (3:2-2)

GAME 1304 Level Design
This course is an introduction to the tools and concepts used to create levels for games and simulations which incorporates level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling, and includes utilization of tools from industry titles. (3:2-2)

GAME 1343 Game and Simulation Programming I
This course covers game and simulation programming. It includes advanced pointer manipulation techniques and pointer applications, points and vectors, sound, and graphics. Prerequisite: ITSE 1307 or COSC 1337 or GAME 1303 or department chair approval (3:2-2)
GAME 1353 Multi-User Game Programming I
This course covers network topologies, architecture and protocols, and communication in game and simulation programming. It introduces sockets programming utilizing TCP and UDP protocols in a high-level language and focuses on blocking and asynchronous modes. (3:2-2)

GAME 2332 Project Development I
This course includes skill development in an original modification based on a current game engine. It includes management of version control; development of project timelines; integration of sound, models, and animation; production of demos; and creation of original levels, characters, and content for a real-time multiplayer game. It applies skills learned in previous classes in a simulated real-world design team experience. Prerequisite: GAME 1304 or department chair approval (3:2-2)

GAME 2341 Game Scripting
This course covers scripting languages with emphasis on game concepts and simulations. Prerequisite: GAME 1304 or department chair approval. (3:2-2)

GAME 2344 DirectX Programming
This course covers the exploration of the advanced suite of multimedia application programming interfaces (API) built into the Microsoft Windows operating system. Prerequisites: Math level 6 and (ITSE 2331 or COSC 2336) or department chair approval (3:2-2)

GAME 2359 Game & Simulation Group Project
This course focuses on the creation of a game and/or simulation project utilizing a team approach. It includes the integration of design, art, audio, programming, quality assurance. Prerequisite: GAME 2332 or department chair approval (3:2-2)

GEOG 1301 Physical Geography
This course includes a study of climate, vegetation, soils, and landforms from a location perspective with an emphasis on map skills. The role of humans in altering their environment is considered, especially the human impact on climate and vegetation. Other topics include the study of latitude and longitude; time zones; earth-sun relationships and the changing seasons; along with severe weather, such as hurricanes and tornadoes. (GEOG 1301 does not satisfy the geography elementary education majors. Check with the Educational Planning and Counseling Office.) Prerequisite: Reading level 6 (3:3-0)

GEOG 1302 Human Geography
This course introduces students to the study of where and why people and activities are located on the earth’s surface. Geographic concepts include spatial organization of economic, social, political, and perceptual environments in an increasingly interrelated world community. Interactions between the natural environment, geopolitics, urban geography, demographics, and economic geography are stressed. Global themes may include the impact of world population trends, environmental problems, trade and economic development, interactions between ethnic groups, and geopolitical change in the post-Cold War period. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

GEOG 1303 World Regional Geography
This course is a study of major world regions with emphasis on prevailing conditions and developments, including emerging conditions and trends, and the awareness of diversity of ideas and practices found in those regions. Course content may include one or more regions. Prerequisites: Reading level 6, Writing level 6 (3:3-0)
**GEOL 1147 Meteorology (lab)**
This lab course is a survey in meteorology and related sciences, intended for both science and non-science majors. The course covers a broad range of topics within the atmospheric sciences at an introductory level and includes laboratory activities. It will provide the student with a general understanding of the Earth’s atmosphere and its behavior. Course objectives include being able to identify and explain observed weather phenomena, being able to describe the structure, composition, and dynamics of the atmosphere, being able to describe the reasons our atmosphere is different from atmospheres of other planets and how our atmosphere has changed and can change. This course should provide a deeper appreciation of the forces acting and motions occurring in the atmosphere to produce various weather and climate conditions. Prerequisites: Reading level 7, Writing level 7, and Math level 9; co-requisite: GEOL 1347 (1:0-3)

**GEOL 1301 Earth Sciences for Non-Science Majors I (lecture)**
This introductory lecture course provides a survey of astronomy, geology, oceanography, and meteorology for non-science majors. Prerequisites: Reading level 7, Writing level 7, Math level 6; co-requisite: GEOL 1101 (3:3-0)

**GEOL 1303 Physical Geology (lecture)**
This course is an introduction to the study of the materials and processes that have modified and shaped the surface and interior of Earth over time. These processes are described by theories based on experimental data and geologic data gathered from field observations. Field trip(s) may be required. Prerequisite: Reading level 7; Co-requisite: GEOL 1103 (3:3-0)

**GEOL 1304 Historical Geology (lecture)**
This lecture course is a comprehensive survey of the history of life and major events in the physical development of Earth as interpreted from rocks and fossils. Field trip(s) may be required. Prerequisites: GEOL 1303 & 1103, Reading level 7; co-requisite: GEOL 1104 (3:3-0)

**GEOL 1305 Environmental Science (lecture)**
This course is a survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. Field trip(s) are required. Prerequisites: Reading level 7; co-requisite: GEOL 1105 (3:3-0)

**GEOL 1347 Meteorology (lecture)**
This lecture course is a survey in meteorology and related sciences, intended for both science and non-science majors. The course covers a broad range of topics within the atmospheric sciences at an introductory level and includes laboratory activities. It will provide the student with a general understanding of the Earth’s atmosphere and its behavior. Course objectives include being able to identify and explain observed weather phenomena, being able to describe the structure, composition, and dynamics of the atmosphere, being able to describe the reasons our atmosphere is different from atmospheres of other planets and how our atmosphere has changed and can change. This course should provide a deeper appreciation of the forces acting and motions occurring in the atmosphere to produce various weather and climate conditions. Prerequisites: Reading level 7, Writing level 7, and Math level 9; co-requisite: GEOL 1147 (3:3-0)

**GEOL 2389 Academic Cooperative**
This is an instructional program designed to integrate on-campus study with practical hands-on work experience in the physical sciences. In conjunction with class seminars, the individual student will set specific goals and objectives in the scientific study of inanimate objects, processes of matter and energy, and associated phenomena. Prerequisites: Eight hours of geology; Reading level 7, Writing level 7, Math level 7 (3:1-8)

**GERM 1411 Beginning German I**
This course is basic German language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the beginner level. Prerequisite: Reading level 6 (4:3-2)

**GERM 1412 Beginning German II**
This course is a continued development of basic German language skills in listening, speaking, reading, and writing within a cultural framework. Students acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the high beginner to low intermediate level. Prerequisite: GERM 1411 (4:3-2)

**GERM 2311 Intermediate German I**
This course is designed to give the student who has completed GERM 1411 and 1412 increased fluency and confidence in the use of the German language. Although no lab is scheduled, students will have access to tapes and other lab materials and will be encouraged to use these supplemental learning tools. Prerequisites: GERM 1411-1412 (3:3-0)
GERM 2312 Intermediate German II
This course is a continuation of GERM 2311. Although no lab is scheduled, students will have access to tapes and other lab materials and will be encouraged to use these supplemental learning tools. Prerequisite: GERM 2311 (3:3-0)

GOVT 2107 Federal and Texas Constitutions
This course is a study of the United States and state constitutions, with special emphasis on Texas. Prerequisite: By permission only. Enrollment limited to students who have already completed a minimum of 6 SCH of GOVT courses but have not satisfied the statutory requirement for study of the federal and state constitutions. Ensures compliance with §TEC 51.301. Prerequisites: Reading level 7 and Writing level 7, and Prerequisite: GOVT 2302 and co-requisite GOVT 2305, or Prerequisite: GOVT 2302 and co-requisite GOVT 2306. (1:1-0)

GOVT 2304 Introduction to Political Science
This course is an introductory survey of the discipline of political science focusing on the scope, and methods of the field and the substantive topics in the discipline including the theoretical foundations of politics, political interaction, political institutions and how political systems function. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

GOVT 2305 Federal Government (Federal Constitution and Topics)
This course is an introductory survey of the United States political system. Topics include origin and development of the U.S. Constitution; structure and powers of the national government including the legislative, executive, and judicial branches; federalism; political participation; the national election process; public policy; civil rights and civil liberties. Prerequisites: Reading level 7; Writing level 7 (3:3-0)

GOVT 2306 Texas Government (Texas Constitution and Topics)
This course is an introductory survey of the Texas political system. Topics include origin and development of the Texas Constitution; structure and powers of state and local government; federalism and inter-governmental relations; political participation; the election process; public policy; and the political culture of Texas. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

GOVT 2311 Mexican-American Politics
This course is a study of Mexican-American/Chicano - a politics within the American political experience. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

GOVT 2389 Academic Cooperative
This is an instructional program designed to integrate on-campus study with practical hands-on experience in government. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human social behavior and/or social institutions. Prerequisites: Reading level 7, Writing level 7 (3:1-8)

GRPH 2309 Electronic Pre-Press I
This course focuses on theory and techniques for pre-press preparation, using industry-standard software for final file output. Topics include the procedures and problems involved in computer file preparation, ranging from trapping, color separation, and resolutions to printing basics and service bureaus. Prerequisite: ARTC 2347 or ARTS 2314 or approval of department chair (3:2-4)

GRPH 2370 Electronic Pre-Press II
This is a continuation of electronic pre-press I, with continued exploration of computer file preparation, including use of Postscript, rip raster image processing, trapping, color separation, and resolutions. Emphasis will be on individual progress. Prerequisite: GRPH 2309 or approval of department chair (3:2-4)

GUST 0105 College Student Success (NCBO)
This course covers psychology of learning and success, and examines factors that underlie learning, success, and personal development in higher education. This course also emphasizes student responsibility and techniques in behavior modification. Topics covered include information processing, memory, strategic learning, self-assessment and regulation, self-management, goal setting and commitment, motivation, educational and career planning, decision making, networking, emotional intelligence, and learning styles. Techniques of study such as time management, listening and note taking, text marking, library and research skills, preparing for examinations, and utilizing learning resources are covered. It includes courses in college orientation and developments of students' academic skills that apply to all disciplines. Prerequisite: Reading level 2, Writing level 4, and Math level 4 (1:1-0)

GUST 0305 College Student Success
This course covers psychology of learning and success, and examine factors that underlie learning, success, and personal development in higher education. This course also emphasizes student responsibility and techniques in behavior modification. Topics covered include information processing, memory, strategic learning, self-assessment and regulation, self-management, goal setting and commitment, motivation, educational and career planning, decision making, networking, emotional intelligence, and learning styles. Techniques of study such as time management, listening and note taking, text marking, library and research skills, preparing for examinations, and utilizing learning resources are covered. It includes courses in college orientation and developments of students' academic skills that apply to all disciplines. Prerequisite: Reading level 2, Writing level 4, and Math level 4 (1:1-0)
and research skills, preparing for examinations, and utilizing learning resources are covered. It includes courses in college orientation and developments of students’ academic skills that apply to all disciplines. Prerequisite: Reading level 2, Writing level 4, and Math level 4 (3:3-0)

**HART 1319 Computers in Hospitality**
This is an introduction to computers and their relationship as an information system to the hospitality industry. This course includes an overview of industry-specific software. (3:3-1)

**HART 1340 Hospitality Legal Issues**
This is a course in legal and regulatory requirements that impact the hospitality industry. Topics include Occupational Safety and Health Administration (OSHA), labor relations, tax laws, tip reporting, franchise regulations, and product liability laws. (3:3-0)

**HART 1356 EPA Recovery Certification Preparation**
This course covers certification training for HVAC refrigerant recovery and recycling. Instruction will provide a review of EPA guidelines for refrigerant recovery and recycling during the installation, service, and repair of all HVAC and refrigeration systems. (3:3-0)

**HART 1401 Basic Electricity for HVAC**
This course focuses on principles of electricity as required by HVAC, including proper use of test equipment, electrical circuits, and component theory and operation. (4:3-3)

**HART 1407 Refrigeration Principles**
This course is an introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, refrigerant handling, and refrigeration components and safety. (4:3-3)

**HART 1441 Residential Air Conditioning**
This is a study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems. Prerequisites: HART 1401 and HART 1407 or department chair approval (4:3-3)

**HART 1445 Gas and Electrical Heating**
This is a study of the procedures and principles used in servicing heating systems including gas-fired furnaces and electric heating systems. Prerequisites or co-requisites: HART 1401 and HART 1407 or department chair approval (4:3-3)

**HART 2301 Air Conditioning and Refrigeration Codes**
This course focuses on HVAC standards and concepts, with emphasis on understanding and documenting the codes and regulations required for a state mechanical contractors license and compliance with local codes. Prerequisite: HART 1441 or department chair approval (3:3-0)

**HART 2302 Commercial Air Conditioning System Design**
This is an advanced study in essential elements of commercial air conditioning contracting, including duct systems design and/or material takeoff, weight estimating, equipment selection, using manufacturer’s catalog data, job cost estimating, scheduling preparation of shop drawings, and submittals. Prerequisites: HART 2345 and HART 2441 or department chair approval (3:3-0)

**HART 2343 Industrial Air Conditioning**
This is a study of components, accessories, applications, and installation of air conditioning systems above a 25 ton capacity. Prerequisites: HART 2441 and HART 2431 or department chair approval (3:3-0)

**HART 2368 Practicum (or Field Experience) - HVAC/R Technology/Technician**
This course offers practical general workplace training through individualized learning plans developed by the employer, the College, and the student. Prerequisites: Completion of 20 semester hours of air conditioning courses, an interview, and department chair approval are required prior to internship assignment (3:0-21)

**HART 2431 Advanced Electricity**
This course provides advanced electrical instruction and skill building in installation and servicing of air conditioning and refrigeration equipment, including detailed instruction in motors and power distribution motors, motor controls, and applications of solid state devices. Prerequisite: HART 1441, HART 1445 or department chair approval (4:3-3)

**HART 2434 Advanced A/C Controls**
This course covers the theory and application of electrical control devices, electromechanical controls, and/or pneumatic controls. Prerequisite or co-requisite: HART 2431 or department chair approval (4:4-0)

**HART 2436 Air Conditioning Troubleshooting**
This is an advanced course in the application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration component and system problems, including conducting performance tests. Prerequisites: HART 1441 and HART 1445 or department chair approval (4:3-3)
HART 2441 Commercial Air Conditioning
This is a study of components, applications, and installation of air conditioning systems with capacities of 20 tons or less. Prerequisites or co-requisites: HART 1441 and HART 2431 or department chair approval (4:3-3)

HART 2442 Commercial Refrigeration
This course focuses on both the theory and practice in the creation of the federal government. Prerequisites or co-requisites: HART 1401 and HART 1407 or department chair approval (4:3-3)

HART 2445 Residential Air Conditioning Systems Design
This course is 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. Also included is a study in essential elements of commercial air conditioning contracting including duct systems design; equipment selection using manufacturers’ catalog data; and preparation of shop drawings and submittals. (4:4-0)

HART 2449 Heat Pumps
This is a study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems. Prerequisites: HART 1401 and HART 1407 or department chair approval (4:3-3)

HECO 1322 Nutrition and Diet Therapy
This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed. (3:3-0)

HIST 1302 United States History II
This is a survey of the social, political, economic, cultural, and intellectual history of the United States from the Civil War/Reconstruction era to the present. United States History II examines industrialization, immigration, world wars, the Great Depression, Cold War and post-Cold War eras. Themes that may be addressed in United States History II include: American culture, religion, civil and human rights, technological change, economic change, immigration and migration, urbanization and suburbanization, the expansion of the federal government, and the study of U.S. foreign policy. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

HIST 2301 Texas History
This is a survey of the social, political, economic, cultural, and intellectual history of Texas from the pre-Columbian era to the present. Themes that may be addressed in Texas History include: Spanish colonization and Spanish Texas; Mexican Texas; the Republic of Texas; statehood and secession; oil, industrialization, and urbanization; civil rights; and modern Texas. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

HIST 2311 Western Civilization I
This is a survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from human origins to the 17th century. Themes that should be addressed in Western Civilization I include the cultural legacies of Mesopotamia, Egypt, Greece, Rome, Byzantium, Islamic civilizations, and Europe through the Middle Ages, Renaissance, and Reformation. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

HIST 2312 Western Civilization II
This is a survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from the 17th century to the modern era. Themes that should be addressed in Western Civilization II include absolutism and constitutionalism, growth of nation states, the Enlightenment, revolutions, classical liberalism, industrialization, imperialism, global conflict, the Cold War, and globalism. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

HIST 2321 World Civilization I
This is a survey of the social, political, economic, cultural, religious and intellectual history of the world from the emergence of human cultures through the 15th century. The course examines major cultural regions of the world in Africa, the Americas, Asia, Europe, and Oceania and their global interactions over time. Themes include the emergence of early societies, the rise of civilizations, the development of political and legal systems, religion and philosophy, economic systems and trans-regional networks of exchange. The course emphasizes the development, interaction and impact of global exchange. Prerequisites: Reading level 7, Writing level 7 (3:3-0)
HIST 2322 World Civilization II
This is a survey of the social, political, economic, cultural, religious, and intellectual history of the world from the 15th century to the present. The course examines major cultural regions of the world in Africa, the Americas, Asia, Europe, and Oceania and their global interactions over time. Themes include maritime exploration and transoceanic empires, national/state formation and industrialization, imperialism, global conflicts and resolutions and the global economic integration. The course emphasizes the development, interaction and impact of global exchange. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

HIST 2327 Mexican-American History I
This course is a study of historical, economic, social, and cultural development of Mexican-Americans/Chicanos to 1900. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

HIST 2328 Mexican-American History II
This course is a study of historical, economic, social, and cultural development of Mexican-Americans/Chicanos from 1900 to the present. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

HIST 2381 African-American History
This course is a study of historical, economic, social, and cultural development of minority groups. May include African-American, Mexican American, Asian American, and Native American issues. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

HIST 2389 Academic Cooperative
This is an instructional program designed to integrate on-campus study with practical hands-on experience in history. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human social behavior and/or social institutions. Prerequisites: Six hours of history; Reading level 7, Writing level 7 (3:1-8)

HITT 1249 Pharmacology
This is an overview of the basic concepts of the pharmacological treatment of various diseases affecting major body systems. (2:2-0)

HITT 1301 Health Data Content and Structure
This is an introduction to systems and processes for collecting, maintaining, and disseminating primary and secondary health-related information including content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens. (3:2-2)

HITT 1305 Medical Terminology I
This is a study of medical terms through word origin and structure. Introduction to abbreviations and symbols, surgical and diagnostic procedures, and medical specialties. (3:3-0)

HITT 1307 Cancer Data Management I
This introduction to cancer data management includes cancer program requirements, the American College of Surgeons Cancer Program Survey process, and an overview of data collection/retrieval-abstracting coding, staging and reporting. Prerequisites: Reading level 7, Writing level 7, BIOL 1308 and BIOL 1108 or BIOL 2301 and 2101; HITT 1305, HITT 1374, HPRS 2301, ITSC 1309 (3:3-0)

HITT 1311 Health Information Systems
This is an introduction to health IT standards, health-related data structures, software applications and enterprise architecture in health care and public health. Prerequisite or co-requisite: ITSC 1309 or BCIS 1305 (3:2-2)

HITT 1341 Coding and Classification Systems
This course covers fundamentals of coding rules, conventions, and guidelines using clinical classification systems. (3:2-2)

HITT 1345 Health Care Delivery Systems
This is an introduction to organization, financing, and delivery of health care services, accreditation, licensure, and regulatory agencies. Prerequisites: Reading level 7, Writing level 7. (3:3-0)

HITT 1353 Legal and Ethical Aspects of Health Information
This course covers concepts of privacy, security confidentiality, ethics, health care legislation, and regulations relating to the maintenance and use of health information. (3:3-0)

HITT 1360 Clinical-Health Information/Medical Records Technology/Technician
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: Reading level 7, Writing level 7, Math level 9 (3:0-9)

HITT 1361 Clinical - Cancer Data Management
This is 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 Certified Tumor Registrar. Prerequisites: Reading level 7, Writing level 7, Math level 9 (3:0-9)
HITT 1374 Anatomy and Physiology
This is a general overview of the normal structure and function of human body including an introduction to the relationship of the body systems in maintaining homeostasis. Prerequisites: Reading level 7, Writing level 7, Math level 9 (3:3-1)

HITT 1377 Clinical-Billing and Coding
This is a supervised learning experience in a health care facility enabling the student to apply skills in basic billing and coding procedures and practices. Emphasis is placed on students achieving entry-level proficiency in billing and coding medical records and physicians office diagnoses and procedures, and the application of policies, standards, and guidelines. (3:0-9)

HITT 1378 Medical Insurance
This course includes instruction to inform and clarify medical insurance reimbursement via coding and completion of applicable insurance forms. Accurate ICD-9-CM/ICD-10-CM and ICD-10-PCS, and CPT coding to be used for completion of insurance forms to governmental agencies, insurance companies, and third party payors. (3:3-0)

HITT 2245 Coding Certification Exam Review
This is a review of the coding competencies and skills in preparation of a coding certification exam. Prerequisites: Reading level 7, Writing level 7, Math level 9 (2:2-0)

HITT 2249 RHIT Competency Review
This is a review of health information technology (HIT) competencies, skills, and knowledge. Prerequisite: Reading level 7, Writing level 7, Math level 9 (2:1-2)

HITT 2307 Cancer Data Management II
This is a continuation of Cancer Data Management I to include the application of cancer registry data. Prerequisite: Reading level 7, Writing level 7, Math level 9, HITT 1307, Co-requisite: HITT 2370 (3:3-0)

HITT 2335 Coding and Reimbursement Methodologies
This course covers advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement. Prerequisites: Reading level 7, Writing level 7, Math level 9, and HITT 1341 (3:2-2)

HITT 2339 Health Information Organization and Supervision
This course covers principles of organization and supervision of human, financial, and physical resources. Prerequisites: Reading level 7, Writing level 7, Math level 9 (3:3-0)

HITT 2343 Quality Assessment and Performance Improvement
This is a study of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, compilation and presentation of data in statistical formats, quality management and performance improvement functions, utilization management, risk management, and medical staff data quality issues, and approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems. Prerequisites: Reading level 7, Writing level 7, Math level 9 (3:3-0)

HITT 2346 Advanced Medical Coding
This course covers the advanced concepts of CPT coding rules, conventions, and guidelines in complex case studies. Includes investigation of government regulations and changes in health care reporting. (3:2-2)

HITT 2360 Clinical I-Health Information/Medical Records Technology/Technician
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: Reading level 7, Writing level 7, Math level 9 (3:0-9)

HITT 2361 Clinical-Health Information/Medical Records Technology/Technician
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: Reading level 7, Writing level 7, Math level 9 (3:0-9)

HMSY 1337 Introduction to Homeland Security
This course is an overview of homeland security including an evaluation of the profession of homeland security issues throughout Texas and the United States. The course includes an examination of the roles undertaken and methods used by governmental agencies and individuals to respond to those issues. Prerequisite: Reading level 4 (3:3-0)
HPRS 1105 Medical Law/Ethics for Health Professions
This is an 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. (1:1-0)

HPRS 1106 Essentials of Medical Terminology
This course is a study of medical terminology, word origin, structure and application. (1:1-0)

HPRS 1202 Wellness and Health Promotion
This course provides an overview of wellness theory and its application throughout the life span. Focus is on attitude development, impact of cultural beliefs, and communication of wellness. (2:2-0)

HPRS 1206 Essentials of Medical Terminology
This course is a study of medical terminology, word origin, structure, and application. (2:2-0)

HPRS 2210 Basic Health Professional Skills II
This course builds on previously acquired knowledge and skills relevant to the professional development of the student. Lecture and simulated laboratory experiences prepare the student to perform patient care utilizing critical thinking and advanced clinical skills. Prerequisites: OPTS 1311 and OPTS 2445. (2:1-4)

HPRS 1201 Introduction to Health Professions
This course is an overview of roles of various members of health care system, educational requirements, and issues affecting the delivery of health care. (2:2-0)

HPRS 1271 Medical Terminology
This course is a continuation in the study and practical application of a medical vocabulary system. Emphasis is on building a vocabulary required for practice within allied health care professions. Co-requisite: HPRS 1106 (2:2-0)

HPRS 1304 Basic Health Professional Skills
This course is a study of the concepts that serve as the foundation for health profession courses, including client care and safety issues, basic client monitoring, and health documentation methods. (3:2-2)

HPRS 2200 Pharmacology for Health Professions
This is a study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of doses. (2:2-0)

HPRS 2301 Pathophysiology
This is a study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and physical and psychological reactions to diseases and injuries. (3:3-0)

HPRS 2302 Medical Terminology for Allied Health
This course is a study of medical terminology, word origin, structure, and application with an emphasis on building a professional vocabulary required for employment within the allied health care field. (3:3-0)

HRPO 1311 Human Relations
This course teaches practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment. Prerequisite: Reading level 4 (3:3-0)

HRPO 2301 Human Resources Management
This course teaches behavioral and legal approaches to the management of human resources in organizations. Prerequisite: Reading level 4 (3:3-0)

HUMA 1301 Introduction to the Humanities I
This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

HUMA 1305 Intro Mexican-American Studies
This interdisciplinary survey examines the different cultural, artistic, economic, historical, political, and social aspects of the Mexican-American, Chicano and Chicana communities. It also covers issues such as dispossession, immigration, transnationalism, and other topics that have shaped the Mexican-American experience. Prerequisites: Reading level 6 and Writing level 6 (3:3-0)

HUMA 1311 Mexican-American Art Appreciation
This course is an examination of Mexican-American/Chicano artistic expressions in the visual and performing arts. Prerequisite: Reading level 6 (3:3-0)
IBUS 1300 Global Logistics Management
This course covers the study of global logistics, management processes, procedures, and regulations used in transportation, physical distribution, warehousing, inventory control, material handling, packaging, plant and warehouse location, risk management, customer service, and networks for logistics, suppliers, and information. It includes decision making and case resolution techniques to solve problems and to develop logistical and information networks for supply chain management appropriate for global corporations. (3:3-0)

IBUS 1301 Principles of Exports
This course is a study of export management processes and procedures including governmental control and compliance licensing or product. The course discusses documentation, commercial invoices, and traffic procedures, emphasizing human and public relations, management of personnel, finances, and accounting. Prerequisite: Reading level 4 (3:3-0)

IBUS 1302 Principles of Imports
This course covers the study of practices and processes of import management operations which may include such factors as government controls and compliance. It emphasizes the preparation and understanding of import documents such as customs invoices, packing lists, and commercial invoices. (3:3-0)

IBUS 1305 Introduction to International Business and Trade
This course covers techniques of entering the international marketplace, with an emphasis on the impact and dynamics of sociocultural, demographic, economic, technological, and political-legal factors in the foreign trade environment. Topics include patterns of world trade, internationalization of the firm, and operating procedures of the multinational enterprise. Prerequisite: Reading level 4 (3:3-0)

IBUS 1341 Introduction to International Supply Chain Global Management
This course is a study of international purchasing or sourcing. Topics include the advantages and the barriers of purchasing internationally, global sourcing and procurement technology, and purchasing processes. It emphasizes issues of contract administration, location, and evaluation of foreign suppliers, total cost approach, exchange fluctuations, customs procedures, and related topics. Prerequisite: Reading level 4 (3:3-0)

IBUS 1354 International Marketing Management
This course provides an analysis of international marketing strategies using market trends, costs, forecasting, pricing, sourcing, and distribution factors. Development of an international marketing plan. General principles of customer relationship management including skills, knowledge, attitudes, and behaviors will be examined. (3:3-0)

IBUS 2341 Intercultural Management
This course explores cross-cultural comparisons of management and communications processes. Emphasizes cultural, ethnic, geographic distinctions, and antecedents that affect individual, group, and organizational behavior. May include sociocultural demographics, economics, technology, legal issues, negotiations, and processes of decision making in the international cultural environment. Prerequisite: Reading level 4. (3:3-0)

IBUS 2345 Import Customs Regulations
This course includes the study of duties and responsibilities of the licensed customs broker such as processes for customs clearance including appraisement, bonded warehouse entry, examination of goods, harmonized tariffs, fees, bonding, penalties, quotas, immediate delivery, consumption, and liquidation, computerized systems, laws and regulations. (3:3-0)

IBUS 2366 Field Experience—International Business/Trade/Commerce
This course offers practical, general workplace training support ed by an individualized learning plan developed by the employer, college, and student. The learning plan emphasizes key components of international business, including business environments and cultures, monetary systems and trade flows, import and export procedures, economics of transportation and distribution channels, government structures and regulatory issues, logistics operations, and supply chain management. Collaborating with the employer, the College develops and documents an individualized plan for the student, relating workforce training and experiences to the student’s general and technical course of study. Prerequisites: 9 credit hours from IBUS courses - IBUS 1300, IBUS 1301, IBUS 1302, IBUS 1305, IBUS 1354, LMGT 1319, or LMGT 1345. A program GPA of at least 2.0 is required, or Department approval. Reading level 4 (3:0-21)

IBUS 2367 Practicum - Field Experience
This course offers practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The learning plan emphasizes key components of international business, including business environments and cultures, monetary systems and trade flows, import and export procedures, economics of transportation and distribution channels, government structures and regulatory issues, logistics operations, and supply chain management. Collaborating with the employer, the College develops and documents an individual-
IZED PLAN FOR THE STUDENT, RELATING WORKFORCE TRAINING AND EXPERIENCES TO THE STUDENT’S GENERAL AND TECHNICAL COURSE OF STUDY.

PREREQUISITES: 9 CREDIT HOURS FROM IBUS COURSES - IBUS 1300, IBUS 1301, IBUS 1302, IBUS 1305, IBUS 1354, LMGT 1319, OR LMGT 1345. A PROGRAM GPA OF AT LEAST 2.0 IS REQUIRED, OR DEPARTMENT APPROVAL. READING LEVEL 4 (3:0-21)

**IFWA 1205 Food Service Equipment and Planning**
This is a study of various types of food service equipment and the planning of equipment layout for product flow and efficient operation. (2:2-0)

**IFWA 1318 Nutrition for the Food Service Professional**
This course is an introduction to nutrition including nutrients, digestion and metabolism, menu planning, recipe modification, dietary guidelines and restrictions, diet and disease, and healthy cooking techniques. Students may not receive credit for IFWA 1318 if they have previously earned credit for RSTO 1217. (3:3-0)

**IFWA 2341 Specialized Food Preparation**
This is a study of ethnic/regional cooking with actual preparation of local favorite dishes and common international favorites. Prerequisite: CHEF 1401 (3:2-4)

**IFWA 2446 Quantity Procedures**
This course includes the exploration of the theory and application of quantity procedures for the operation of commercial, institutional, and industrial food services with an emphasis on quantity cookery and distribution. Co-requisite: CHEF 1205 (4:2-8)

**IMED 1301 Introduction to Digital Media**
This course offers a survey of the theories, elements, and hardware/software components of digital media. Emphasis is on conceptualizing and producing digital media presentations. (3:2-4)

**IMED 1316 Web Page Design I**
This course offers instruction in web design and related graphic design issues including mark-up languages, web sites, and browsers. Prerequisite: ARTC 1325 or ARTS 2348 (3:2-4)

**IMED 1341 Interface Design -with Photoshop**
This course offers skill development in the interface design process, including selecting interfaces that are meaningful to users and relative to a project’s content and delivery system. Emphasis is on aesthetic issues such as iconography, screen composition, colors, and typography. This class utilizes the Photoshop software package. (3:2-2)

**IMED 1345 Interactive Digital Media I**
This course covers the use of graphics and sound to create interactive digital media applications and/or animations using industry standard authoring software. (3:2-2)

**IMED 2315 Web Page Design II**
This course is a study of mark-up language advanced layout techniques for creating web pages. The emphasis is on identifying the target audience and producing web sites according to accessibility standards, cultural appearance, and legal issues. Prerequisite: IMED 1316 or approval of department chair (3:2-4)

**IMED 2345 Interactive Digital Media II**
This course offers instruction in the use of scripting languages to create interactive digital media applications. Prerequisite: IMED 1301 or approval of department chair (3:2-4)

**INCR 1302 Physics of Instrumentation**
This course is an introduction to simple control loops. Also, an introduction to pressure, temperature level, and flow transmitters and the various transducers used in the detection of changes in process variables. Prerequisites: Reading level 6, Writing level 6, Math level 6 (3:2-2)

**INDS 1311 Fundamental of Interior Design**
This course is an introduction to the elements and principles of design, the interior design profession, and the interior design problem-solving process. (3:2-4)

**INDS 1345 Commercial Design I**
This course is a study of design principles applied to furniture lay-out and space planning for commercial interiors. (3:2-4)

**INDS 1415 Materials, Methods and Estimating**
This is a study of materials, methods of construction and installation, and estimating for interior design applications. (4:3-3)

**INDS 1449 Fundamental of Space Planning**
This course covers the study of residential and light commercial spaces, including programming, codes, standards, space planning, drawings and presentations. (4:3-3)

**INDS 1451 History of Interiors I**
This course is an historical survey of design in architecture, interiors, furnishings, and decorative elements from the ancient cultures through the Italian Renaissance time period and includes a historical survey of antiquities and European styles and periods of architecture, interiors, and furnishings focusing on Egypt, Greece, Italy, Spain, and France. (4:4-0)
**INDS 1452 History of Interiors II**
This course is a multi-cultural historical survey of design in architecture, interiors, furnishings, and decorative elements from the post-Renaissance period to present time and includes an historical survey of English and American styles and periods of architecture, interiors, and furnishing focusing on the twentieth century. (4:4-0)

**INDS 2237 Portfolio Presentation**
This is a course in the preparation and presentation of a comprehensive interior design portfolio, including resume preparation, employment interview skills, and goal setting. (2:2-0)

**INDS 2313 Residential Design I**
This course is the study of residential spaces, including the identification of client needs, programming, standards, space planning, drawings, and presentations. (3:2-4)

**INDS 2315 Lighting for Interior Designer**
This course is designed to teach the fundamentals of lighting design, including lamps, luminaires, lighting techniques, and applications for residential and commercial projects. (3:3-0)

**INDS 2321 Presentation Drawing**
This course is an introduction to two- and three-dimensional presentations, including drawings with one- and two-point perspectives, plans, and elevations. (3:2-4)

**INDS 2325 Professional Practices for Interior Design**
This course is a study of business practices and procedures for interior designers, including professional ethics, project management, marketing, and legal issues. (3:2-4)

**INDS 2335 Residential Design II**
This course is a comprehensive study of complex residential interior design problems, including advanced space planning, specifications, budgets, and presentation renderings. (3:2-4)

**INDS 2386 Internship-Interior Design**
This course is a work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the College and the employer. It offers experiences 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. Monitored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the College and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. The course may be repeated if topics and learning outcomes vary. (3:2-4)

**INDS 2387 Internship-Interior Design**
This course is a work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the College and the employer. It offers 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. Monitored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the College and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. The course may be repeated if topics and learning outcomes vary. (3:0-9)

**INDS 2405 Interior Design Graphics**
This course offers skill development in computer-generated graphics and drawings for interior design applications. (4:3-3)

**INDS 2407 Textiles for Interior Design**
This course covers the study of interior design textiles including characteristics, care, codes, and applications. (4:3-3)

**INEW 2340 Object-Oriented Design - Game Design**
This course is a study of large system analysis and design concepts from the object-oriented perspective. It includes determining required objects and their interfaces, and it also covers relationships between objects. (3:2-2)

**INRW 0102 Developmental Integrated Reading and Writing (NCBO)**
This is a combined lecture/lab, performance-based course designed to develop students' critical reading and academic writing skills. The focus of the course will be on applying critical reading skills for organizing, analyzing, and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. The course integrates preparation in basic academic reading skills with basic skills in writing a variety of academic essays. This is a course with a required lab. The course fulfills TSI requirements for reading and writing. (1:0.5-0.5)

**INRW 0301 Developmental Integrated Reading and Writing-Intermediate**
This first-level course is a combined lecture/lab, performance-based course designed to develop students' critical reading and academic writing skills. The focus of the course will be on applying critical reading skills for organizing, analyzing, and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. The course integrates preparation in basic academic reading skills with basic skills in writing a variety of academic essays. This is a
course with a required lab. The course fulfills TSI requirements for reading and/or writing. Prerequisite: Reading level 4, Writing level 4 (3:3-1)

**INTC 0302 Developmental Integrated Reading and Writing - Advanced**
This second-level course is a combined lecture/lab, performance-based course designed to develop students’ critical reading and academic writing skills. The focus of the course will be on applying critical reading skills for organizing, analyzing, and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. The course integrates preparation in basic academic reading skills with basic skills in writing a variety of academic essays. This is a course with a required lab. The course fulfills TSI requirements for reading and/or writing. Prerequisite: Reading level 6, Writing level 6 (3:3-1)

**INTC 1315 Final Control Elements**
This course is a study of the various designs of final control elements including disassembly, assembly, calibration, troubleshooting, and required documentation. It includes instruction in basic techniques and calculations for proper valve sizing. Prerequisite: INTC 2310 Reading level 6, Writing level 6, Math level 6. (3:2-2)

**INTC 1322 Analog Controls I**
This course is a study of basic concept-related industrial electrical controls. Includes components, terminology, symbols and diagrams used in analog control systems. Prerequisite: ELPT 1311 or CETT 1302 Reading level 6, Writing level 6, Math level 6 (3:2-2)

**INTC 1341 Principles of Automatic Control**
This course is a study of the theory of basic measurements, automatic control systems and design, closed loop systems, controllers, feedback, control modes and control configurations. Topics include a study of process characteristics, control modes, control loop configurations, control loop analysis and controller tuning concepts. Computer based simulation will be used to reinforce the study learning objectives. Reading level 6, Math level 6, Writing level 6 (3:2-2)

**INTC 1348 Analytical Instrumentation**
This course is a study of analytical instruments emphasizing their utilization in process applications including, but not limited to, chromatography, PH, conductivity, and spectrophotometer instruments. Topics include density, viscosity, conductivity, humidity/moisture, chromatography, spectroscopy, fugitive emissions and the flammable and explosive characteristics of solids, liquids and gases. Prerequisite: INTC 2336 Reading level 6, Math level 6, Writing level 6 (3:3-0)

**INTC 1350 Digital Measurement and Controls**
This course offers a review of basic measurement control instrumentation. Includes movement of digital data through common systems employing parallel and serial transfers. (3:2-2)

**INTC 1353 Analog Controls II**
This course is a study of analog controls in industrial processes. Includes electrical distribution, motor controls, relay logic, and ladder logic. Prerequisite: INTC 1322, Reading level 6, Math level 6, Writing level 6 (3:2-2)

**INTC 1355 Unit Operations**
This course is an in-depth study of automatic control requirements of industrial process. Includes control systems, control loop tuning, and analysis. Prerequisite: INTC 2310. Reading level 6, Math level 6, Writing level 6 (3:2-2)

**INTC 1375 Sample Systems**
This course is designed to foster a comprehensive understanding of sample systems used in conjunction with process analytical instrumentation. Coverage will include sample system theoretical foundations, various sample system applications, design, testing and safety procedures, along with basic troubleshooting and maintenance techniques used when working with this hardware. Pre-requisite: INTC 1348 Reading level 6, Math level 6, Writing level 6. (3:2-2)

**INTC 1443 Applications of Industrial Automatic Control**
This is a study of automatic process control including measuring devices, analog and digital instrumentation, signal transmitters, recorders, alarms, controllers, control valves, and process and instrument alarms, controllers, control valves, and process and instrument drawings. It includes connection and troubleshooting of loops. (4:3-3)

**INTC 1445 Instrumentation Repair**
This course includes an analysis of the procedures necessary to isolate faults in microcomputer or programmable logic controller based process control systems including symptom analysis, schematic and print reading, and proper use of test equipment to isolate failures to the repairable unit. (4:3-3)

**INTC 2310 Principles of Industrial Measurement II**
This course is a study of additional principles of measurement. Includes devices used to measure process variables and basic control functions. Prerequisite: INTC 1301 or INCR 1302. Reading level 6, Math level 6, Writing level 6. (3:2-2)
INTC 2330 Troubleshooting
This course in an in-depth coverage of the techniques of troubleshooting instrumentation systems in a process environment. Includes troubleshooting upsets in processes. Prerequisites: INTC 1315. Writing level 6, Math level 6, Reading level 6. (3:2-2)

INTC 2333 Instrumentation Systems Installation
This course covers synthesis, application, and integration of instrument installation components and includes a comprehensive final project. Prerequisite: INTC 2310 (3:2-2)

INTC 2336 Distributed Control and Programmable Logic
This course is an overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicators. It includes functions of digital systems in a process control environment. Prerequisite: INTC 1315. Reading level 6, Math level 6, Writing level 6. (3:2-2)

INTC 2339 Instrument and Control Review
This course is an overview of instrument and control technology, stressing preparation for industry employment testing for the National Institute of Engineering Technologist Certification (level 2) or the Instrumentation Systems and Automatic Certified Control Systems Technician (level 1) Certificate (ISA CCST). This course prepares graduating students with the background necessary to take the ISA Technician Training certification in preparation for industry employment and national testing. Prerequisites: INTC 2330. Reading level 6, Math level 6, Writing level 6. (3:3-0)

INTC 2345 Advanced Analyzers
This course covers advanced topics in composition analyzers and their sample systems. The course is designed to foster a comprehensive understanding of the more advanced analyzers, such as the gas chromatographs, ultraviolet and infrared analyzers. Coverage will include sample systems for the analyzers, the design and theory of operation of each analyzer type, safety procedures along with basic troubleshooting and maintenance techniques. Prerequisites: INTC 1348 and 1375 (3:2-2)

INTC 2359 Distributed Control Systems
This course is a study of philosophy and application of distributed control systems. Topics include hardware, firmware, software, configuration, communications and networking systems required to implement a distributed control strategy. Reading level 6, Math level 6, Writing level 6. (3:2-2)

INTC 2374 Physical Properties Analyzers
This course covers the theory of operation, calibration, sample analysis, maintenance and repair of pH, ORP, conductivity, oxygen and moisture analyzers and relevant safety concepts associated with each. Prerequisites: INTC 1348. Reading level 6, Math level 6, Writing level 6. (3:2-2)

INTC 2388 Internship Instrumentation Technology/Technician
This is a work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the College and the employer. Prerequisite: department chair approval. Reading level 6, Math level 6, Writing level 6. (3:0-18)

INTC 2436 Distributed Control and Programmable Logic
This is an overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicator; functions of digital systems in a process control environment. (4:3-3)

ITCC 1301 Cisco Exploration 1 - Network Fundamentals
This is a course introducing the architecture, structure, functions, components, and models of the Internet. It describes the use of OSI and TCP layered models to examine the nature and roles of protocols and services at the applications, network, data link, and physical layers. Also covered are the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. The students will build simple LAN topologies by applying basic principles of cabling; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. Prerequisite or co-requisite: ITSC 1305 or department chair approval (3:2-3)

ITCC 1308 Introduction to Voice over Internet Protocol (VoIP)
This course covers basic concepts of voice over internet protocol (VoIP). Focuses on technology integration of and data transmission in network communications. Prerequisite: ITCC 1301 or ITNW 1325 (3:2-2)

ITCC 1404 Cisco Exploration 2 - Routing Protocols and Concepts
This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. Students will recognize and correct common routing issues and problems, and model and analyze routing processes. Prerequisite: ITCC 1301 or department chair approval (4:3-2)
ITCC 2408 Cisco Explorations 3 - LAN Switching and Wireless
This course helps students develop an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks. Topics include detailed explanations of LAN switch operations, VLAN implementation, Rapid Spanning Tree Protocol (RSTP), VLAN Trunking Protocol (VTP), Inter-VLAN routing, and wireless network operations. Students will analyze, configure, verify, and troubleshoot VLANs, RSTP, VTP, and wireless networks. Campus network design and Layer 3 switching concepts are introduced. Prerequisite: ITCC 1404 or department chair approval (4:3-2)

ITCC 2410 Cisco Exploration 4 - Accessing the WAN
This course explains the principles of traffic control and access control lists (ACLs) and provides an overview of the services and protocols at the data link layer for wide-area access. Students will learn how to describe user access technologies and devices and discover how to implement and configure Point-to-Point Protocol (PPP), Point-to-Point Protocol over Ethernet (PPPoE), DSL, and Frame Relay. WAN security concepts, tunneling, and VPN basics are introduced. Students will discuss the special network services required by converged applications and an introduction to quality of service (QoS). Prerequisite: ITCC 2408 or department chair approval (4:3-2)

ITNW 1313 Computer Virtualization
This course explores installation, configuration, and management of computer virtualization workstation and servers, as well as implementing and supporting virtualization of clients of servers in a networked computing environment. (3:2-2)

ITNW 1325 Fundamentals of Networking Technologies
This course covers instruction in networking technologies and their implementation. Topics include network fundamentals and terminology; the OSI reference model; network protocols; transmission media; networking hardware and software; identifying media used in network communication; connecting servers and clients in a network; recognizing the primary network architectures/topologies; determining how to implement and support the major networking components, including the server, operating system, and clients; distinguishing between Local Area Networks (LANs) and Wide Area Networks (WANs); identifying the components used to expand a LAN into a WAN; how to implement connectivity devices in the larger LAN/WAN environments; and networking technologies as they apply to current Microsoft Windows Operating Systems. The students will gain experience installing, configuring and maintaining current Windows Operating Systems. (3:2-2)

ITNW 1345 Implementing Network Directory Services
This course provides students with in-depth coverage of the skills necessary to install, configure, and administer Network Directory service. Prerequisite: ITNW 1354 or department chair approval (3:2-2)

ITNW 1353 Supporting Network Server Infrastructure
Installing, configuring, managing, and supporting a network infrastructure are covered in this course. Implementing routing; implementing, managing and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access are topics covered in this course. (Non-vendor specific course.) Prerequisite: ITNW 1354 or department chair approval (3:2-2)

ITNW 1354 Implementing and Supporting Servers
This is a course in the development of skills necessary to implement, administer, and troubleshoot information systems that incorporate servers in a networked computing environment. Topics include managing accounts and resources, maintaining server resources, monitoring server performance, and safeguarding data in a Microsoft Windows Server 2003 environment, including skills necessary to implement, administer, and troubleshoot information systems that incorporate Windows Based Servers in a networked computing environment. Topics include setting up servers for various client computers. It also covers how to configure directory applications, how to manage licensing, user group accounts, user profiles, system policies and profiles, administer remote servers, disk resources, create and share resources, implement permissions and security, fault-tolerance, install and configure RAS, identify, monitor, and resolve performance bottlenecks and configuration problems. Prerequisite: ITSC 1305 or department chair approval (3:2-2)

ITNW 1392 Special Topics in Computer Systems Networking and Telecommunications
Topics in this course address 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. Prerequisite: department chair approval (3:2-2)
ITNW 2352 Administering SQL Server
This is a skills development course in the installation, configuration, administration, and troubleshooting of SQL Servers client/server database management system version. Prerequisites: ITSW 2337 and ITNW 1325 or department chair approval (3:2-2)

ITNW 2354 Internet/Intranet Server
This course covers designing, installing, configuring, maintaining, and managing an Internet/Intranet server. Topics include workstation maintenance and Internet-related protocols; implementation of Internet servers such as World Wide Web (WWW), file transfer protocols (FTP), new, mail and gopher. Course includes hands-on experience building web servers. Prerequisite: ITNW 1325 or ITCC 1301 or department chair approval (3:2-2)

ITSC 1305 Introduction to PC Operating Systems
This course is a study of current personal computer operating systems. Topics include installation and configuration, file management, memory and storage management, control of peripheral devices, use of utilities including command line, and the Windows operating system. (3:2-2)

ITSC 1307 UNIX Operating System I
This course covers an introduction to the UNIX operating system, including multi-user concepts, terminal emulation, use of system editor, basic UNIX commands, and writing script files. Topics include introductory systems management concepts. Prerequisite: ITSC 1305 or department chair approval (3:2-2)

ITSC 1309 Integrated Software Applications I
This course covers an introduction to business productivity software suites using word processing, spreadsheets, databases, and/or presentation software. It includes instruction in embedding data, linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software. Fundamentals of personal computer operations and the Windows operating system will also be covered. (3:2-2)

ITSC 1319 Internet/Web Page Development
This course includes instruction in the use of Internet concepts and the introduction to web page design and website development. It is an introduction to designing and publishing web documents. It includes basic markup language, hyperlinks, tables, frames, images, forms, and an exploration of tools available for creating and editing web documents. (3:2-2)

ITSC 1321 Intermediate PC Operating Systems
The course covers custom operating system installation, configuration, and troubleshooting. Topics include installation and configuration, file management, memory and storage management, continued study in advanced installation, configuration troubleshooting, advanced file management, memory, storage management. It also covers how to update peripheral device drivers, and use of utilities to increase system performance. This will extend the student’s knowledge of hardware, systems and application software, data integration and communications. Prerequisite: ITSC 1325 or department chair approval (3:2-2)

ITSC 1325 Personal Computer Hardware
This course is a study of current personal computer hardware, including personal computer assembly, upgrading, setup and configuration, and troubleshooting. Major topics include an overview of the computer system, installing and configuring hardware and software, troubleshooting hardware and software problems, management of the computer’s resources (including hard drive space and memory) data storage on hard drives and external drives, data recovery methods, and installing peripheral equipment. (3:2-2)

ITSC 1391 Special Topics in Computer and Informational Sciences, General
Topics addressed in this course include current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: department chair approval (3:2-2)

ITSC 2321 Integrated Software Applications II
This course is an intermediate study of computer applications from business productivity software suites. It also covers instruction in embedding data and linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software. Prerequisite: ITSC 1309 or department chair approval (3:2-2)

ITSC 2337 UNIX Operating System II
This course is a continued study of the UNIX operating system commands. It includes advanced concepts of system management and communication, the installation and maintenance of software, network security, and data integrity issues. This course heavily utilizes the Linux OS and includes additional topics such as CGI, PERL, and scripting languages. Prerequisite: ITSC 1307 or department chair approval (3:2-2)
ITSC 2339 Personal Computer Help Desk
This course covers diagnosis and solution of user hardware and software related problems with on-the-job and/or simulated projects. Emphasis will be placed upon hands-on training (e.g., participation in the construction of an expert system). Prerequisite: ITSC 1325 or ITSC 2321 or department chair approval (3:2-2)

ITSC 2364 Practicum - Computer and Information Sciences, General
This practicum class is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: 15 credit hours of computer courses (9 of these credit hours must be earned at San Jacinto College) which must include at least one of the following courses: ITCC 1404, ITNW 1354, ITNW 2354, ITSE 1359, ITSE 2313, ITSE 2331, ITSW 2334, or ITSW 2337. An accumulative GPA of at least 2.0 is required. An interview and department chair approval are required 60 days prior to enrollment. (3:0-21)

ITSE 1307 Introduction to C++ Programming
This course is an introduction to computer programming using C++. The emphasis is on the fundamentals of object-oriented design with development, testing, implementation, and documentation. It includes language syntax, data and file structures, input/output devices, and files. Since C++ is based on the C language, the course will also cover some C language functions and techniques. Students will learn/use standard C++ to complete assignments which give experience in coding, testing, and debugging applications. (3:2-2)

ITSE 1329 Programming Logic and Design
This course covers programming problem-solving by applying object-oriented programming and structured programming techniques, and representation of algorithms using appropriate design tools such as hierarchy charts, flowcharts, data flow charts, and pseudocode. It includes discussion of methods for testing, evaluating, and documenting programs. This course includes hands-on lab assignments to implement the techniques. (3:3-1)

ITSE 1331 Introduction to Visual BASIC Programming
This is an introduction to computer programming using Visual BASIC, with an emphasis on the fundamentals of structure design, development, testing, implementation, and documentation. The course includes language syntax, data and file structures, input/output devices, and files, sequence, branch, and loop control structures; use of sequential files; interactive screen processing; printed report generation; and event driven programming are also covered. (3:2-2)

ITSE 1345 Introduction to Oracle SQL
This course is an introduction to the design and creation of relational databases using Oracle. Topics include storing, retrieving, updating, and displaying data using Structured Query Language (SQL). Prerequisite or co-requisite: ITSW 1307 or department chair approval (3:2-2)

ITSE 1356 Extensible Markup Language (XML)
This course is an introduction of skills and practices related to Extensible Markup Language (XML). Includes Document Type Definition (DTD), well-formed and valid XML documents, XML schemes, and Extensible Style Language (XSL). Prerequisite: ITSC 1319 (3:2-2)

ITSE 1359 Introduction To Scripting Languages
This course is an introduction to scripting languages including basic data types, control structures, regular expressions, input/output, and textual analysis. Prerequisite: ITSE 1319 (3:2-2)

ITSE 1371 Mobile Apps Development
This course explores developing applications for mobile devices, both smartphones and tablets. It will provide an overview of different mobile devices and their development environments as well as cover mobile web development. Students will learn skills in the design and development of mobile applications using up-to-date software development tools and APIs. (3:2-2)

ITSE 1391 Special Topics in Computer Programming
Topics in this course address current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. (3:2-2)

ITSE 2309 Database Programming
This is a course in database development using database programming techniques emphasizing database structures, modeling, and database access. Topics include developing database applications using a structured query language (SQL Server) to design SQL Server applications; architecture describing Transact-SQL. It also covers how to create and manage databases, implement data integrity, create queries and reports from database tables, optimize query performance, create and maintain indexes, and create appropriate documentation. Prerequisite: ITSW 2337 or department chair approval (3:2-2)
ITSE 2313 Web Authoring
This course provides instruction in designing and developing Web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools. Prerequisite: ITSC 1319 or department chair approval (3:2-2)

ITSE 2317 Java Programming
This course is an introduction to object-orientation Java programming. It emphasizes the fundamental syntax and semantics of Java for applications and web applets. Prerequisite: ITSE 1307 or department chair approval (3:2-2)

ITSE 2331 Advanced C++ Programming
This course includes further application of C++ programming techniques including file access, abstract data structures, class inheritance and other advanced techniques. Students will study Object Oriented Programs (OOP) by using, creating and modifying C++ classes. In addition, students will use many of the standard built-in C++ classes and data structures to solve programming assignments. Prerequisite: ITSE 1307 or department chair approval (3:2-2)

ITSE 2345 Data Structures
This course covers the design and analysis of data structures and their operations. Prerequisite: ITSE 1307 or COSC 1337 or department chair approval (3:2-2)

ITSW 1307 Introduction to Database
This course is an introduction to database theory and the practical applications of a database. Students will plan, define, and design a database; design and generate tables, forms, and reports; and devise and process queries. Prerequisite: ITSC 1309 or department chair approval (3:2-2)

ITSW 2334 Advanced Spreadsheets
This course includes advanced techniques for developing and modifying spreadsheets, including macros and data analysis functions. Topics covered include data entry, graphics, table building and searching, macro development, customized reports, database administration, and statistical analysis. Prerequisite: ITSC 1309 or department chair approval (3:2-2)

ITSW 2337 Advanced Database
This course covers advanced concepts of database design and functionality. It is designed to provide an understanding of advanced functionality of databases, including physical representation, design criteria, and application implementation. A data control language is used in the implementation of database processing applications. Programs written will include report generation, multiple file management, relational database management, online screen generation, and menu driven systems. Prerequisite: ITSW 1307 or department chair approval (3:2-2)

ITSY 1342 Information Technology Security
Instruction is provided in security for network hardware, software, and data including physical security; backup procedures; relevant tools; encryption; and protection from viruses. Prerequisite: ITNW 1325 or ITCC 1301 or department chair approval (3:2-2)

ITSY 2300 Operating System Security
This course covers the safeguarding of computer systems by demonstrating server support skills and designing and implementing a security system. Students will identify security threats and monitor network security implementations, and use best practices to configure operating systems to industry security standards. (3:2-2)

ITSY 2301 Firewalls and Network Security
Students will identify elements of firewall design, types of security threats and responses to security attacks using best practices to design, implement, and monitor a network security plan, as well as perform security incident postmortem reporting and ongoing network security activities. (3:2-2)

ITSY 2341 Security Management Practices
This course provides 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; network security design; and developing and maintaining a security plan. (3:2-2)

ITSY 2342 Incident Response and Handling
This course presents an in-depth coverage of incident response and incident handling, including identifying sources of attacks and security breaches; analyzing security logs; recovering the system to normal; performing postmortem analysis; and implementing and modifying security measures. (3:2-2)

ITSY 2343 Computer System Forensics
This course provides an in-depth study of system forensics including methodologies used for analysis of computer security breaches. It also includes gathering and evaluating evidence to perform postmortem analysis of a security breach. Prerequisites: ITSY 1342 and ITSY 2301 or department chair approval (3:2-2)

ITSY 2345 Network Defense and Countermeasures
This is a practical application and comprehensive course that includes the planning, design, and construction of a complex network that will sustain an attack, document events, and mitigate the effects of the attack. This is a capstone course. (3:2-2)
COURSE DESCRIPTIONS

ITSY 2359 Security Assessment and Auditing
This course is the capstone experience for the security curriculum. It synthesizes technical material covered in prior courses to monitor, audit, analyze, and revise computer and network security systems to ensure appropriate levels of protection are in place to assure regulatory compliance. (3:2-2)

LGLA 1303 Legal Research
This course provides a working knowledge of the fundamentals of effective legal research. Topics include law library techniques, traditional hardcopy legal research, computer assisted legal research, briefs, and legal memoranda. The student will locate, read, and understand primary and secondary legal authority, design and implement effective legal research strategies; and be familiar with computer assisted legal research tools and the proper role of these tools. Prerequisite or co-requisite: LGLA 1307 (3:3-1)

LGLA 1305 Legal Writing
This course presents the fundamentals of legal writing techniques. Topics include letters, case briefs, legal memoranda, trial and appellate briefs, case and fact analysis, citation forms, and legal writing styles. It is recommended you take or have taken LGLA 1303, Legal Research. Prerequisites: LGLA 1307, ENGL 1301 (3:3-0)

LGLA 1307 Introduction to Law and the Legal Professions
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. The student will develop a legal vocabulary; explain fundamental legal concepts and systems; explain the ethical obligations. Prerequisite: Reading level 4 (3:3-0)

LGLA 1317 Law Office Technology
This course introduces computer technology and its applications within the law office. Topics include the use of computer technology in the delivery of legal services with particular emphasis on the paralegal’s role. (3:3-1)

LGLA 1343 Bankruptcy
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. Prerequisite: Reading level 4 and Prerequisite or co-requisite: LGLA 1307 (3:3-0)

LGLA 1345 Civil Litigation
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. The student will define and properly use terminology relating to civil litigation, locate, describe, and analyze sources of law relating to the civil litigation process, describe the role and ethical obligations of the paralegal in civil litigation; and draft documents commonly used in civil litigation. Prerequisite or co-requisite: LGLA 1307, Reading level 4 (3:3-0)

LGLA 1349 Constitutional Law
This course presents an overview of the United States Constitution and its articles, amendments, and judicial interpretations. Includes separation of powers, checks and balances, governmental structures and process, and individual rights in relation to government. Prerequisite: Reading level 4. Prerequisite or co-requisite: LGLA 1307 (3:3-0)

LGLA 1351 Contracts
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, the Uniform Commercial Code, and the Texas Business and Commerce Code. The student will define and properly use terminology relating to contract law, locate, describe, and analyze sources of law relating to contract law; describe the role and ethical obligations of the paralegal relating to contract law; and draft documents commonly used in contract law. Prerequisite or co-requisite: LGLA 1307 (3:3-0)

LGLA 1353 Wills, Trusts, and Probate Administration
This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal’s role. The student will define and properly use terminology relating to wills, trusts, and probate administration; locate, describe, and analyze sources of law relating to wills, trusts, and probate administration; describe the role and ethical obligations of the paralegal in wills, trusts, and probate administration; and draft documents commonly used in wills, trusts, and probate administration. Prerequisites or co-requisites: LGLA 1307, Reading level 4 (3:3-0)
LGLA 1355 Family Law
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, adoption, and the parent-child relationship. The student will define and properly use terminology relating to family law; locate; describe, and analyze sources of law relating to family law; describe the role and ethical obligations of the paralegal in family law; and draft documents commonly used in family law. Prerequisites or co-requisites: LGLA 1307, Reading level 4 (3:3-0)

LGLA 1359 Immigration Law
This course presents fundamental concepts of immigration law with emphasis on the paralegal’s role. Topics include substantive and procedural law related to visa applications, deportation, naturalization, and citizenship. Prerequisite: Reading level 4 and prerequisite or co-requisite: LGLA 1307 (3:3-0)

LGLA 1391 TX and US Constitutional Law
This course includes a study of specific limited provisions of the Texas and U.S. Constitutions affecting recent societal legal issues. Discussion includes the history and evolution of both documents. Students will analyze case law from the U.S. Supreme Court, the Texas Supreme Court and the Texas Court of Criminal Appeals analyzing both constitutions. Students will complete a written law office memorandum based on assigned facts. Prerequisite or co-requisite: LGLA 1307 (3:3-0)

LGLA 2303 Torts and Personal Injury Law
This course is a study of principles, methods, and investigative techniques utilized to locate, gather, document, and manage information related to tort and personal injury law, with an emphasis on developing interviewing and investigative skills to prepare the paralegal to communicate effectively while recognizing ethical problems in this area of law. Prerequisites or co-requisites: Reading level 4, LGLA 1307 (3:3-0)

LGLA 2305 Interviewing and Investigating
This course is a study of techniques used to locate, gather, document, and manage information with emphasis on developing interview and investigative skills and the paralegal’s role in interviewing and investigating legal matters. Prerequisite or co-requisite: LGLA 1307. Prerequisite: Reading level 4 (3:3-0)

LGLA 2309 Real Property
This course presents fundamental concepts of real property law with emphasis on the paralegal’s role. Topics include the nature of real property, rights and duties of ownership, land use, voluntary and involuntary conveyances, and recording of and searching for real estate documents. Prerequisites or co-requisites: LGLA 1307, Reading level 4 (3:3-0)

LGLA 2311 Business Organizations
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. The student will define and properly use terminology relating to business organizations; locate, describe, and analyze sources of law relating to business organizations; describe the role and ethical obligations of the paralegal relating to formation, operation, and termination of the various business entities; describe the formation, operation, and termination of business entities; and draft documents required for the formation, operation, and termination of business entities; and draft documents required for the formation, operation, and termination of business entities. Prerequisite or co-requisite: LGLA 1307 (3:3-0)

LGLA 2313 Criminal Law and Procedure
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. The student will define and properly use terminology relating to criminal law; describe sources of law relating to criminal law; locate and analyze cases and statutes relating to criminal law; describe the role and ethical obligations of the paralegal relating to criminal law; and draft documents commonly used in criminal law. Prerequisite or co-requisite: LGLA 1307, Reading level 4 (3:3-0)

LGLA 2323 Intellectual Property
This course presents the fundamentals of intellectual property law, including creation, procurement, preparation, and filing documents related to patents, copyrights, trademarks, and processes of intellectual property litigation with emphasis on the paralegal’s role. Prerequisite: Reading level 4 and prerequisite or co-requisite: LGLA 1307 (3:3-0)

LGLA 2333 Advanced Legal Document Preparation
This course covers preparation of legal documents based on hypothetical fact situations drawn from various areas including real estate, family law, contracts, litigations, and business organizations. Prerequisites or co-requisites: LGLA 1307, Reading level 4 (3:3-0)

LGLA 2335 Advanced Civil Litigation
This course implements advanced civil litigation techniques with emphasis on the paralegal’s role and builds upon skills acquired in prior civil litigation courses. It is recommended you take or have taken LGLA 1345 Civil Litigation. Prerequisite: LGLA 1307, Reading level 4 (3:3-0)
COURSE DESCRIPTIONS

LGLA 2388 Internship-Paralegal/Legal Assistant
This course provides an experience external to the College for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the College and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. As outlined in the learning plan, the student will master the theory, concepts and skills involving the tools, materials, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, and legal systems associated with the particular occupational and the business/industry; demonstrate ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry. Prerequisites: 18 credit hours of LGLA courses and ENGL 1301 (Student must be “placed” the semester before they plan to take this course. This course may be taken a maximum two times for credit.) (3:1-15)

LMGT 1321 Introduction to Materials Handling
This course introduces the concepts and principles of materials management to include inventory control and forecasting activities. (3:3-0)

LMGT 1325 Warehouse and Distribution Center Management
This course emphasizes physical distribution and total supply chain management. It includes warehouse operations management, hardware and software operations, bar codes, organization effectiveness, just-in-time manufacturing, continuous replenishment, and third-party issues. Prerequisite: Reading level 4 (3:3-0)

LMGT 1345 Economics of Transportation and Distribution
This is a study of the basic economic principles and concepts applicable to transportation and distribution. Prerequisite: Reading level 4 (3:3-0)

LTCA 1312 Resident Care in the Long-Term Care Facility
This course includes a study of the delivery of quality services to residents of long-term care facilities. It is an overview of the methods for accessing and implementing strategies to promote quality resident care, and includes a presentation of philosophical and ethical considerations. (3:3-0)

LTCA 1313 Organization and Management of Long Term Care Facilities
This is an overview of the functional organizational structures common to long term health care facilities. It includes an examination of the departments in long term care facilities, chain of command, personnel, regulatory requirements, quality indicators, and the role of the long-term care administrator. (3:3-0)

LTCA 2310 Environment of Long-Term Care Facility
This course is an examination of the long-term care facility as a home-like environment with particular attention to building, grounds, and equipment. Also addresses rules, regulations, policies, and procedures affecting environmental safety. (3:3-0)

LTCA 2314 Long Term Care Law
This is an examination of the types and sources of law relating to the long term care industry. A study of federal, state, and local statutes and regulations affecting the long-term care industry is covered. (3:3-0)

LTCA 2315 Financial Management of Long Term Care Facilities
This is a study of techniques and strategies for gathering and using financial information to make decisions in the long-term care facility and includes an examination of budget processes, accounting principles, financial statements, and inventory controls. Topics include the special accounting requirements of Medicare, Medicaid, and other third-party payment systems. (3:3-0)

LTCA 2388 Internship-Health Care Facilities Administration/Management
This is a work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. A learning plan is developed by the College and the employer. (3:0-18)

LTCA 2488 Internship-Health Care Facilities Administration/Management
This is a work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. A learning plan is developed by the College and the employer. (3:0-22)

LTCA 2489 Internship-Health Care Facilities Administration/Management
This is a work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. A learning plan is developed by the College and the employer. (3:0-23)
M

**MAMT 2333 Essentials of Mammography**
This course includes concepts, theories, and equipment employed in breast imaging. Emphasis will be placed on breast anatomy, physiology, routine and additional projections and positions, patient education, and assessment. Content will include mammographic techniques for breast compression, magnification, specimen radiography, and selection of technical factors. Course will integrate interventional procedures, special exams, and special modalities. Quality Control and Quality Assurance procedures as described in the Mammography Quality Control Manual will be addressed. (3:3-0)

**MAMT 2363 Clinical - Mammography Technology**
This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Graduate of a 2-year accredited medical radiography program in Radiology. ARRT certification in Radiography. (3:0-10)

**MARA 2401 Introduction to Ships and Shipping**
Introduction to the maritime industry and ships used in the transportation of goods and services. Shipboard nomenclature, types and missions of merchant ships, shipbuilding nomenclature and dimensions, shipbuilding materials and methods, modes of cargo handling and their impact on ship design. Prerequisite: Reading level 7 (4:3-2)

**MART 1371 Introduction to Ships and Shipping**
This is an introduction to the maritime industry and ships used in the transportation of goods and services. Shipboard nomenclature, types and missions of merchant ships, shipbuilding, shipbuilding materials and methods, modes of cargo handling and their impact on ship design. Prerequisite: Reading level 4 (3:3-0)

**MATH 0106 NCBO Preparation for Academic Mathematics**
This course is intended for students who nearly place into a transfer-level math course. The course includes the study of relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations. The use of an online software package is required. (1:1-0)

**MATH 0303 Basic Mathematics**
This is an arithmetic course which builds basic skills of addition, subtraction, multiplication and division with whole numbers, fractions, and decimals. Additional topics include graphing whole numbers, fractions and decimals on a number line as well as area and perimeter concepts. This course is designed specifically for students who need a review of the basic arithmetic skills or have not yet mastered them. This course is not applicable toward any degree. Prerequisite: Math level 2 (3:2-2)

**MATH 0305 Introductory Algebra**
This course is a study of the basic algebra of solving and graphing linear equations, and systems. Other topics include formulas, literal equations, polynomials, integral exponents, and factoring. Algebraic and basic geometric applications are included. This course promotes critical thinking and problem solving techniques. This course is not applicable toward any degree. Prerequisite: Math level 6 (3:3-1)

**MATH 0306 Intermediate Algebra**
This course is a study of intermediate algebra including sets, polynomials, exponents, radicals, and functions. Studies of quadratic and rational equations and inequalities, as well as graphs of quadratics and other nonlinear equations and inequalities are also included. The course emphasizes applications in both single- and multi-step real world problems. This course is not applicable toward any degree. Prerequisite: a grade of C or better in MATH 0305 or math score within defined range (3:3-1)

**MATH 0314 Algebraic Foundations**
This course is a study of the basic algebraic concepts necessary for success in MATH 1314 (College Algebra), to include exponent rules, radical and rational expressions, and the solution of equations and inequalities. This course is not applicable toward any degree. Prerequisites: a grade of B or better in MATH 0304 or Math level 6, Reading level 7. Co-requisite: MATH 1314 (3:3-0)

**MATH 0332 Foundations of Mathematical Reasoning**
This course is a study of the basic concepts necessary for success in MATH 1332 or MATH 1342 to include numeracy, proportional reasoning, probabilistic reasoning to assess risk, quantitative reasoning in personal finance and civic life, and algebraic competence, reasoning and modeling. This course is not applicable towards any degree. Prerequisites: Reading level 7, Math level 6 (3:3-0)
MATH 0342 Foundations in Statistics
This course is a study of the basic concepts necessary for success in MATH 1342 to include numeracy, proportional reasoning, probabilistic reasoning to assess risk, quantitative reasoning in personal finance and civic life, and algebraic competence, reasoning, and modeling. This course is not applicable towards any degree. Prerequisites: Reading level 7, Math level 6 (3:3-0)

MATH 1314 College Algebra
This course is an in-depth study and application of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Prerequisite: A grade of C or better in MATH 0306 or Math level 9. (3:3-0)

MATH 1316 Plane Trigonometry
This course is an in-depth study and applications of trigonometry including definitions, identities, inverse functions, solutions of equations, graphing, and solving triangles. Additional topics such as vectors, polar coordinates and parametric equations may be included. Prerequisites: MATH 1314 or approval by department chair (3:3-0)

MATH 1324 Mathematics for Business and Social Sciences
The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value. Prerequisite: Math level 9; or equivalent (3:3-0)

MATH 1325 Calculus for Business and Social Sciences
This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences. This course is not a substitute for MATH 2413, Calculus I. Prerequisite: MATH 1314 or MATH 1324. (The content of MATH 1325 is expected to be below the content level of MATH 2413) (3:3-0)

MATH 1332 Contemporary Mathematics I (Math for Liberal Arts Majors I)
This course contains topics which may include introductory treatments of sets, logic, number systems, number theory, relations, functions, probability and statistics. Appropriate applications are included. Prerequisites: a grade of C or better in MATH 0306 or math score within defined range (3:3-0)

MATH 1333 Contemporary Mathematics for Technical Programs
This course provides a broad background in principles and applications of mathematics found in many technical and vocational degree programs. Topics may include: a survey of equations (linear, quadratic, rational, exponential and logarithmic); geometry; trigonometry; relations and functions; statistics; matrices; and select applications. This course will satisfy the math requirement of the associate of applied science degree, but does not satisfy the math requirement of the associate of arts, associate of science, or associate of arts in teaching degree. Prerequisite: a grade of C or better in MATH 0306 or Math level 9 (3:3-0)

MATH 1342 Elementary Statistical Methods
This course covers collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended. Prerequisite: Math level 9; or equivalent.(3:3-0)

MATH 1350 Fundamentals of Mathematics I
This course focuses on 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. This course is designed specifically for students who seek EC-8 teacher certification. Prerequisites: MATH 1314 (3:3-0)

MATH 1351 Fundamentals of Mathematics II
This course focuses on concepts of geometry, probability, and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement, with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek EC-8 teacher certification. Prerequisite: MATH 1314 or approval by department chair (3:3-0)

MATH 2318 Linear Algebra
This course introduces and provides models for application of the concepts of vector algebra. Topics include finite dimensional vector spaces and their geometric significance; representing and solving systems of linear equations using multiple methods, including Gaussian elimination and matrix inversion; matrices; determinants; linear transformations; quadratic forms; eigenvalues and eigenvector; and applications in science and engineering. Prerequisite: MATH 2414 (3:3-0)
MATH 2320 Differential Equations
This course focuses on ordinary differential equations, including linear equations, systems of equations, equations with variable coefficients, existence and uniqueness of solutions, series solutions, singular points, transform methods, and boundary value problems; application of differential equations to real-world problems. Prerequisite: MATH 2414 (3:3-0)

MATH 2412 Pre-Calculus Math
This course is an in-depth combined study of algebra, trigonometry, and other topics for calculus readiness. Prerequisite: MATH 1314 or approval by department chair (4:4-0)

MATH 2413 Calculus I
This course covers limits and continuity, the Fundamental Theorem of Calculus, the definition of the derivative of a function, techniques of differentiation, applications of the derivative to maximizing or minimizing a function, the chain rule, mean value theorem, and rate of change problems, curve sketching, definite and indefinite integration of elementary functions with an application to the calculation of areas. Prerequisite: MATH 2412 or equivalent preparation (4:4-0)

MATH 2414 Calculus II
This course covers differentiation and integration of transcendental functions, parametric equations and polar coordinates, techniques of integration, sequences and series, improper integrals. Prerequisite: MATH 2413 (4:4-0)

MATH 2415 Calculus III
This course focuses on advanced topics in calculus, including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, and Jacobians; application of the line integral, including Green’s Theorem, the Divergence Theorem, and Stokes’ Theorem. Prerequisite: MATH 2414 (4:4-0)

MDCA 1205 Medical Law and Ethics
This course covers instruction in principles, procedures, and regulations involving legal and ethical relationships among physicians, patients, and medical assistants in ambulatory care settings. (2:2-0)

MDCA 1254 Medical Assisting Credentialing Exam Review
This is a preparation for the Certified Medical Assistant (American Association of Medical Assistants) or Registered Medical Assistant (American Medical Technologists) credentialing exam. (2:1-2)
MDCA 1560 Clinical - Medical/Clinical Assistant
This is 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 (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Prerequisites: MDCA 1417. (5:0-15)

METL 1305 Welding Metallurgy I
This is a study of metallurgy and its application related to welding including studies of metal characteristics, testing, effects of alloying and heat treating, and basic properties, with an emphasis on conducting tests and metallographic techniques. (3:2-4)

METL 1313 Introduction to Corrosion
This course provides an introduction to internal, external, and atmospheric corrosion including terminology, causes of common problems in industry, and general remedies such as cathodic protection, protective coatings, material selection, and chemical treatments. (3:2-2)

METL 2335 Welding Metallurgy II
This is an advanced course in the application of metallurgy principles to the processes and procedures pertaining to various metal compositions and fusions. Studies include the metallurgy and selection of filler metal groups, the nature of defects, metal fusion problems, thermal effects in metal fusion, and the welding of various kinds of steel and nonferrous materials. Prerequisite: METL 1305 or METL 1405 or department chair approval (3:2-4)

MLAB 1101 Introduction to Clinical Laboratory Science
This course is an introduction to medical laboratory science, structure, equipment and philosophy. (1:1-1)

MLAB 1227 Coagulation
This is a course in coagulation theory, procedures, and practical applications. It includes quality control, quality assurance, safety and laboratory procedures which rely on commonly performed manual and/or semi-automated methods. Prerequisite: MLAB 1101 (2:2-1)

MLAB 1231 Parasitology/Mycology
This is a study of the taxonomy, morphology, and pathogenesis of human parasites and fungi, including the practical application of laboratory procedures, quality control, quality assurance, and safety. Prerequisite or co-requisite: MLAB 2434 (2:2-1)

MLAB 1235 Immunology/Serology
This course is 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 as well as quality control, quality assurance, and safety. Prerequisite: MLAB 1101 (2:2-1)

MLAB 1311 Urinalysis and Body Fluids
This course is an introduction to the study of urine and body fluid analysis. It includes the anatomy and physiology of the kidney, physical, chemical and microscopic examination of urine, cerebrospinal fluid, and other body fluids as well as quality control, quality assurance and safety. Prerequisite: a student must enroll in the medical laboratory technology program. (3:2-2)

MLAB 1415 Hematology
This is a study of blood cells in normal and abnormal conditions. It includes instruction in the theory and practical application of hematology procedures, including quality control, quality assurance, safety, manual and/or automated methods as well as blood cell maturation sequences, and normal and abnormal morphology with associated diseases. Prerequisite: a student must have been accepted into the medical laboratory technology program or have permission from the department chair. Prerequisite: MLAB 1101 (4:3-4)

MLAB 2166 Practicum I-Medical Laboratory Technician
This course covers 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 technical course of study. This course may be repeated if topics and learning outcomes vary. Prerequisite: MLAB 2434 (1:0-9)

MLAB 2238 Advanced Topic in Medical Laboratory Technician
This course examines the integration of all areas of the clinical laboratory and correlates test data with diagnostic applications and pathophysiology using critical thinking skills. (2:2-0)

MLAB 2266 Practicum II-Medical Laboratory Technician
This course covers 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. This course may be repeated if topics and learning outcomes vary. Prerequisite: MLAB 2431 (2:0-17)
MLAB 2267 Practicum III-Medical Laboratory Technician
This course covers 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. This course may be repeated if topics and learning outcomes vary. Prerequisite: MLAB 2501 (2:0-17)

MLAB 2338 Advanced Topics in Medical Laboratory Technician
This course examines the integration of all areas of the clinical laboratory and correlates laboratory test data with diagnostic applications and pathophysiology using critical thinking skills. This capstone course provides the student with the synthesis of knowledge and skills in preparation for professional employment and establishes the framework for continuous growth in the medical laboratory technology field. Prerequisites: MLAB 2434 and MLAB 2266 (3:3-0)

MLAB 2401 Clinical Chemistry
As an intermediate level course, it is an introduction to the principles, procedures, physiological basis, and significance of testing performed in clinical chemistry. Includes quality control, reference values, and safety. (4:3-4)

MLAB 2431 Immunohematology
This course is a study of blood antigens and antibodies. Presents quality control, basic laboratory technique and safety. Include the principles, procedures and clinical significance of test results in genetics, blood group systems, pre-transfusion testing, adverse effects of transfusions, donor selection and components, and hemolytic disease of the newborn. (4:3-4)

MLAB 2434 Clinical Microbiology
This course covers instruction in the theory, practical application, and pathogenesis of clinical microbiology, including collection, quality control, quality assurance, safety, setup, identification, susceptibility testing, and reporting results. Prerequisite: MLAB 1101 or department chair approval (4:3-4)

MRIT 2330 Principles of Magnetic Resonance Imaging
This course is an in-depth coverage of magnetic resonance imaging techniques. Image quality assurance and safety protocols are emphasized. Prerequisites: ARRT registered or registry eligible, or department approval. (3:3-0)

MRIT 2334 Magnetic Resonance Equipment and Methodology
This course covers skill development in the operation of magnetic resonance imaging equipment, focusing on routine procedures and safety protocols, image quality, and quality assurance. Prerequisites: RADR 2340, MRIT 2360, MRIT 2330, or departmental approval. (3:3-0)

MRIT 2360 Clinical 1-Magnetic Resonance Imaging Technology/Technician
This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: ARRT registered or registry eligible or departmental approval. (3:0-18)

MRIT 2461 Clinical - Radiologic Technology/Science - Radiographer
This course is 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. (4:0-20)

MRKG 1311 Principles of Marketing
This is an introduction to basic marketing mix functions and process; identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research. Prerequisite: Reading level 4 (3:3-0)

MRKG 2312 E-Commerce Marketing
This course explores the convergence and divergence of traditional marketing principles and strategies with those of electronic marketing. The focus is on marketing communications and developing customer relationships in this dynamic environment. How e-marketers use electronic tools to pursue and evaluate these goals also are considered. Prerequisite: Reading level 4 (3:3-0)

MRKG 2333 Principles of Selling
This course is an overview of the selling process. Identification of the elements of the communication process between buyers and sellers is discussed as well as examination of the legal and ethical issues of organizations which affect salespeople. Prerequisite: Reading level 4 (3:3-0)
MRMT 1307 Medical Transcription I
This course teaches the 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. The course utilizes transcribing and information processing equipment compatible with industry standards, and is designed to develop speed and accuracy. Prerequisites or co-requisites: HPRS 1106 and 1271 (3:3-1)

MSCI 1125 Physical Readiness Training
This is a physical conditioning class designed to promote high levels of performance on the Army Physical Fitness Test (APFT), and to improve the health, endurance, and strength of the body. This course satisfies the physical education requirement and may be repeated. This course prepares each cadet for the APFT consisting of 2 minutes of push-ups, 2 minutes of sit-ups, as well as the two mile run. This class, given by the Military Science Department, uses Army techniques and guidelines during each session. (1:0-1)

MSCI 1126 Physical Readiness Training
This is a physical conditioning class designed to promote high levels of performance on the Army Physical Fitness Test (APFT), and to improve the health, endurance, and strength of the body. This course satisfies the physical education requirement and may be repeated. This course prepares each cadet for the APFT consisting of 2 minutes of push-ups, 2 minutes of sit-ups, as well as the two mile run. This class, given by the Military Science Department, uses Army techniques and guidelines during each session. (1:0-1)

MSCI 1131 Advanced Physical Fitness Course
This is a senior level ROTC physical conditioning class designed to promote high levels of performance on the Army Physical Fitness Test (APFT), and to improve the health, endurance, and strength of the body. Emphasis is placed on implementations of the Army’s physical fitness program through lecture and practical exercise. Students will also become familiar with Army height, weight, and body fat standards. Participate in three assessment sessions to track individual improvement and participate as leaders in the conduct of the physical training session in the vicinity of SJCD area. Prerequisite or co-requisite: MSCI 1125 (1:0-1)

MSCI 1210 Introduction to ROTC
This course explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework. Aspects of personal motivation and team building are practiced planning, executing and assessing team exercises. While participation in the leadership labs is not mandatory during the MSL II year, significant experience can be gained in a multitude of areas and participation in the labs is highly encouraged. The focus continues to build on developing knowledge of the leadership attributes and core leader competencies through the understanding of Army rank, structure, and duties as well as broadening knowledge of land navigation and squad tactics. Case studies will provide a tangible context for learning the Soldier’s Creed and Warrior Ethos as they apply in the contemporary operating environment. (2:1-2)

MSCI 1220 Introduction to Leadership
This course introduces you to the personal challenges and competencies that are critical for effective leadership. You will learn how the personal development of life skills such as goal setting, time management, physical fitness, and stress management relate to leadership, officership, and the Army profession. The focus is on developing basic knowledge and comprehension of Army leadership dimensions, attributes and core leader competencies while gaining a big picture understanding of the ROTC program, its purpose in the Army, and its advantages for the student. (2:1-2)

MSCI 2210 Military Leadership Development Cr. 2
This course focuses on characteristics of leadership, problem analysis, decision making, oral presentations, first aid, small unit tactics, land navigation, basic radio communication, marksmanship, fitness training, and rappelling. Fitness training required two times per week in addition to class and lab. (2:2-2)

MSCI 2220 Military Leadership Development Cr. 2
This course focuses on characteristics of leadership, problem analysis, decision making, oral presentations, first aid, small unit tactics, land navigation, basic radio communication, marksmanship, fitness training, and rappelling. Fitness training required two times per week in addition to class and lab. (2:2-2)

MSCI 2810 Basic Camp Cr. 8
No military obligation is associated with this course. Student will not receive credit for both basic course work and Basic Camp. Six week off-campus field training practicum. Introduces students to the Army and leadership. Prerequisite: Approval of the department chair. (8:0-8)

MSSG 1105 Hydrotherapy
This course is a study of the use of accepted hydrotherapy and holistic health care modalities of external application of temperature for its reflexive effect. Prerequisites or co-requisites: Courses taken in level sequence order or department chair approval, 32 contact hours (1:0-2)
MSSG 1109 Health and Hygiene
This is a study of safety and sanitation practices including universal precautions. The importance of proper body mechanics, maintaining a healthy lifestyle, maintaining the massage environment, and the advantage of therapeutic relationships is also included. Prerequisites or co-requisites: Courses taken in level sequence order or department chair approval 32 contact hours (1:1-1)

MSSG 1411 Massage Therapy Fundamentals I
This course is an introduction to the theory and the application of skills necessary to perform Swedish massage to meet the minimum 125 contact hour requirement for licensure. Prerequisites or co-requisites: Courses taken in level sequence order or department chair approval, 128 contact hours (4:2-6)

MSSG 1413 Anatomy and Physiology for Massage
This course offers an in-depth coverage of the structure and function of the human body. It includes cell structure and function, tissues, body organization, and the integumentary, skeletal, muscular, and nervous, and endocrine systems, and emphasizes homeostasis/wellness care. It meets the minimum 75 contact hour requirement for anatomy and physiology for licensure. Prerequisites or co-requisites: Courses taken in level sequence order or department chair approval, 80 contact hours (4:3-2)

MSSG 2186 Internship-Massage Therapy/Therapeutic Massage
This is a work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. A learning plan is developed by the College and the employer. (1:0-6)

MSSG 2311 Massage Therapy Fundamentals II
This course is a continuation of Massage Therapy Fundamentals I, emphasizing specialized techniques and assessment of client needs to identify a specific plan of care. It completes the requirements for Massage Techniques for Licensure. Prerequisites or co-requisites: Courses taken in level sequence order or department chair approval, 80 contact hours (3:1-4)

MSSG 2313 Kinesiology for Massage
This course focuses on applied study of human kinesiology. Muscle movements and dysfunctions will be discussed and palpated. It includes theory and practice of functional muscle testing. It meets the minimum 50 contact hour requirement for licensure. Prerequisites or co-requisites: Courses take in level sequence order or department chair approval, 64 contact hours (3:2-2)

MSSG 2314 Pathology for Massage
This course covers general discussion of pathologies as they relate to massage therapy. Includes universal precautions and their management in professional practice. It also covers etiology, signs, symptoms, and the physiological and psychological reactions to disease and injury. It meets the minimum 40 contact hour requirement for licensure. Prerequisites or co-requisites: Courses taken in level sequence order or department chair approval, 48 contact hours (3:3-0)

MUEN 1121 Instrumental Ensemble
Membership is open to all students on the basis of audition and/or conference. Instruments may include all orchestra instruments. The instrumental ensemble meets three laboratory hours per week with special rehearsals called as needed. The course may be taken a maximum of six times for credit. (1:0-3)
MUEN 1122 Concert Band
Membership is open to all students on the basis of the audition and/or conference. Performance literature represents many styles of music. Concert band meets three hours per week, with special rehearsals called as needed. This course may be repeated a maximum of six times for credit. (1:0-3)

MUEN 1124 Wind Ensemble
Membership is open to all students on the basis of the audition and/or conference. Performance literature represents many styles of music, making Wind Ensemble interesting and enjoyable. The Wind Ensemble meets three hours per week, with special rehearsals called as needed. This course may be repeated a maximum of six times for credit. (1:0-3)

MUEN 1125 Jazz Ensemble
Membership is open to all students on the basis of audition and/or conference. Instruments in the Jazz Ensemble include trumpets, trombones, saxophones, clarinets, flutes, piano, bass, guitar and drums. Performance literature represents many styles of music; big band jazz, swing, Latin jazz, and jazz/rock. The Jazz Ensemble meets three hours per week with special rehearsals as needed. This course may be repeated a maximum of six times for credit. (1:0-3)

MUEN 1131 Small Instrumental Ensemble
Membership is open to all students on the basis of audition and/or conference. Instruments in the small instrumental ensemble may vary from semester to semester. The small instrumental ensemble meets three laboratory hours per week with special rehearsals called as needed. This course may be repeated a maximum of six times for credit. (1:0-3)

MUEN 1141 College Choir
Membership is open to all students on the basis of audition and/or conference. The College choir performs many styles of sacred and secular literature. This course may be repeated a maximum of six times for credit. (1:0-3)

MUEN 1143 Concert Choir
Membership is open to all students on the basis of audition. This group has a limited membership which performs serious and entertaining music throughout the semester. This course may be taken a maximum of six times for credit. (1:0-3)

MUEN 1154 Small Vocal Ensemble
Membership is open to all students on the basis of audition and/or conference. This group has a limited membership which performs serious and entertaining music throughout the semester. Compositions performed may include for madrigals, duets, trios, quartets, sextets, or other small vocal ensembles. Students enrolled in this course are also expected to enroll in MUEN 1141 (College choir). This course may be repeated a maximum of six times for credit. (1:0-3)

MUSB 1305 Survey of Music Business
This course includes an overview of the music industry including song writing, live performance, the record industry, music merchandising, contracts and licenses and career opportunities. (3:3-0)

MUSC 1323 Audio Electronics Troubleshooting
This course covers basic concepts in electricity, Ohm’s Law, circuit analysis and troubleshooting audio problems. Topics include soldering techniques, audio electronic alignment procedures for tape machines, console maintenance, and sound reinforcement equipment maintenance. (3:2-2)

MUSC 1327 Audio Engineering I
This course provides an overview of the modern recording studio and related personnel. Topics include basic studio electronics and acoustic principles, wave form and analysis, microphone concepts and miking techniques, studio setup and signal flow, recording console theory, signal processing concepts, tape machine principles and operation, and overview of mixing and editing. (3:2-4)

MUSC 1331 Musical Instrument Digital Interface
This course provides an overview of Musical Instrument Digital Interface (MIDI) systems and applications. Topics include the history and evolution of MIDI, hardware requirements, computer numbering systems, channels and modes, the MIDI language and typical implementation of MIDI applications in the studio environment using software-based sequencing programs. Prerequisites: MUSI 1301, MUSI 1181 (3:2-2)

MUSC 1405 Live Sound I
This course is an overview of the field of live sound. Includes principles of live sound and the theory an interconnection of the components of a sound reinforcement system. (4:2-4)
COURSE DESCRIPTIONS

**Musc 2101 Audio Engineering Practices**
This course is a practical application of the concepts, techniques and procedures presented in Audio Engineering I and Audio Engineering II. The students will be divided into several working units comprised of 3-4 students per unit. Each group will be required to complete two recording projects during the semester. It may be repeated for credit up to three times if topics and learning outcomes vary. Prerequisite: MUSC 2427 (1:0-3)

**Musc 2355 Musical Instrument Digital Interface II**
This is a continuation of MIDI I with emphasis on advanced sequencer operation and SMPTE-based synchronization in the interaction of multiple recording and playback systems. Topics also include synthesis and its relation to software and hardware devices, sampling and sampling manipulation utilizing software sequencers, and sequencing for video. The student will perform advanced MIDI techniques, execute multimachine synchronization and demonstrate advanced use of software-based sequencing, synthesis and sampling devices. Prerequisite: MUSC 1331 (3:2-2)

**Musc 2386 Internship-Recording Arts Technology/Technician**
This is a practical, general training and experience 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 technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning experiences vary. Prerequisite: MUSC 2447, MUSC 2355 (3:0-18)

**Musc 2403 Live Sound II**
This course provides an overview of stage monitor systems. Includes monitor system set-up, operation, and stage management. Also covers interactivity between sound management, performance quality and audience experience. (4:2-4)

**Musc 2427 Audio Engineering II**
This is a continuation of Audio Engineering I with emphasis on implementation of techniques and theories of the recording process. Topics include applications of microphones, the audio console, the multitrack tape recorder, and signal processing devices in the recording session environment. Prerequisite: MUSC 1327 (4:3-3)

**Musc 2447 Audio Engineering III**
This course covers presentation of advanced procedures and techniques utilized in recording and manipulating audio information. Topics include advanced computer-based console automation, hard disk-based digital audio editing, nonlinear digital multitrack recording and advanced engineering projects. Prerequisites: MUSC 2427 (4:3-3)

**Musi 1110 Perspective in Jazz**
This course will discuss topics related to jazz with special emphasis on its development and contribution to American culture. It is structured for the student interested in jazz music. (1:1-0)

**Musi 1159 Music Theater Production**
Membership is open to all students on the basis of audition and/or conference. Students enrolled in this course will present a musical theater production at the end of this course and/or will prepare and perform quality musical theater literature. Students with leading roles also will be expected to concurrently enroll in DRAm 1120 (Rehearsal and Performance). This course may be taken a maximum of two times for credit. (1:0-4.5)

**Musi 1163 Jazz Improvisation I**
This is a course designed to provide background knowledge of basic materials and skills used in improvising jazz solos. Jazz Improvisation is structured for any student with a performing medium in music. Prerequisite: knowledge of all major scales (1:1-2)

**Musi 1164 Jazz Improvisation II**
This is a continuation of Musi 1163. Prerequisite: Musi 1163 or instructor approval (1:1-2)

**Musi 1181 Class Piano I**
Beginning Class Piano equips students with little or no background in music with the basic information and techniques necessary to read and perform simple music at the keyboard. Subsequent classes build upon and refine the information and techniques. (1:1-1)

**Musi 1182 Class Piano II**
This is a continuation of Class Piano I. (1:1-1)

**Musi 1183 Class Voice I**
Class Voice begins with instruction in the fundamentals of correct breathing, tone production and diction. It is a course designed for students with little or no previous training to aid in developing a pleasing tone quality produced with ease and proper enunciation. Additional semesters expand and sharpen these skills in a sequential pattern. (1:1-1)

**Musi 1184 Class Voice II**
This is a continuation of Class Voice I. (1:1-1)

**Musi 1188 Class Percussion I**
This course includes class instruction in the fundamental techniques of playing percussion. The course is designed for the student with little or no background in music with the basic information and techniques necessary to read and perform simple repertoire. (1:1-1)
MUSI 1192 Class Guitar I
Beginning Class Guitar is intended to develop student skills in applied music theory, sight-reading, performance and technique on the instrument. The class is for beginners to intermediate level students with limited experience. (1:1-1)

MUSI 1193 Class Guitar II
This is a continuation of Class Guitar I. (1:1-1)

MUSI 1211 Theory of Music I
This is a study of the fundamentals of musicianship, including aspects of notation and part-writing. Prerequisites: approval of the instructor and concurrent enrollment in appropriate ear training course and piano, unless waiver is granted by instructor. (2:3-0)

MUSI 1212 Theory of Music II
This is a continuation of MUSI 1211. Prerequisite: MUSI 1211 or instructor approval and concurrent enrollment in ear training course and piano. (2:3-0)

MUSI 1216 Ear Training and Sight Singing I
This course provides basic aural, visual and vocal experience in the form of dictation and sight singing. Prerequisites: approval of instructor and concurrent enrollment in appropriate theory course and piano. (2:3-0)

MUSI 1217 Ear Training and Sight Singing II
This is a continuation of MUSI 1216. Prerequisites: MUSI 1216 or instructor approval and concurrent enrollment in theory course and piano. (2:3-0)

MUSI 1301 Music Fundamentals
This course is designed to familiarize students with the meaning of musical notation through the study of scales, chords and rhythm. It is especially adapted for students preparing to become teachers, and other students who wish to gain a broader knowledge of music. (3:3-0)

MUSI 1306 Music Appreciation
This course covers an understanding of music through the study of cultural periods, major composers, and musical elements, illustrated with audio recordings and live performances. (Does not apply to a music major degree.) (3:3-0)

MUSI 1307 Music Literature
This course is a survey of the principal musical forms and cultural periods as illustrated in the literature of major composers. Prerequisite: Reading level 6 (3:3-0)

MUSI 1310 American Music
This course is a general survey of various styles of music in America. Topics may include jazz, ragtime, folk, rock, and contemporary art music. (3:3-0)

MUSI 2181 Class Piano III
This is a continuation of Class Piano II. (1:1-1)

MUSI 2182 Class Piano IV
This is a continuation of Class Piano III. (1:1-1)

MUSI 2211 Theory of Music III
This is a continuation of the first-year theory course. It includes written and keyboard harmonic analysis. Prerequisites: MUSI 1212 or approval of the instructor, and concurrent enrollment in ear training course and piano. (2:3-0)

MUSI 2212 Theory of Music IV
This is a continuation of MUSI 2211. Prerequisites: MUSI 2211 and concurrent enrollment in ear training course and piano. (2:3-0)

MUSI 2216 Ear Training and Sight Singing III
This is a continuation of the first-year course in Ear Training and Sight Singing. Prerequisite: MUSI 1217, co-requisite: concurrent enrollment in appropriate theory course and piano. (2:3-0)

MUSI 2217 Ear Training and Sight Singing IV
This is a continuation of MUSI 2216. Prerequisite: MUSI 2216, co-requisite: concurrent enrollment in appropriate theory course and piano. (2:3-0)

NAUT 1171 Medical Care Provider
This course is designed for licensed deck officers who provide immediate first aid to ship’s personnel and to assist the ship’s medical person-in-charge. The course provides training for candidates who provide medical care to the sick and injured when they remain on board ship. (1:1-0)
**NAUT 1174 Maritime Regulation and Management**
This course covers an in-depth examination of the laws and regulations surrounding the maritime transportation industry, and how the industry responds. The Jones Act, EPA, SOLAS, MARPOL, STCW, Flag, Class and Port State Control and Subchapter M will be reviewed. Case studies of well-known industry incidents will be reviewed. Industry responses such as the AWO/RCP-ISM Code and SEMS will be discussed. Students will learn about vessel safety and environmental management systems as well as document control, internal auditing, corrective and preventive action, change management and risk analysis and control. (1:1-0)

**NAUT 1272 Marine Cargo Operations I**
This course is an introduction to the maritime industry and ships used in the transportation of goods and services. Shipboard nomenclature, types and missions of merchant ships, shipbuilding, shipbuilding materials and methods, modes of cargo handling and their impact on ship design. Prerequisite: Reading level 4 (4:4-0)

**NAUT 1274 Maritime Regulation and Management**
This course covers an in-depth examination of the laws and regulations surrounding the maritime transportation industry, and how the industry responds. The Jones Act, EPA, SOLAS, MARPOL, STCW, Flag, Class and Port State Control and Subchapter M will be reviewed. Case studies of well-known industry incidents will be reviewed. Industry responses such as the AWO/RCP-ISM Code and SEMS will be discussed. Students will learn about vessel safety and environmental management systems as well as document control, internal auditing, corrective and preventive action, change management and risk analysis and control. (1:1-0)

**NAUT 1276 Seamanship II**
This course is an introduction to vessel characteristics, vessel operations and ship handling with a focus on inland, coastal, oil and towing vessels. Ship handling in inland waters, narrow channels as well as maneuvering in heavy seas, docking, undocking, mooring will be discussed. The make-up of tows and the use and maintenance of towing machinery and gear will be discussed. (2:2-1)

**NAUT 1372 Seamanship I**
This course is a study of seamanship designed to introduce the student to the maritime workplace and prepare them for employment. The students are prepared for the role of Able-Bodied Seaman and assignment to lookout and watch keeping duties aboard inland, coastal and ocean going vessels. Vessel Security Officer responsibilities will also be addressed. This course is designed to teach new skills to the entry-level mariner with minimal sea-going experience and serves to increase awareness and promote safety in maritime surroundings. (3:3-1)

**NAUT 1374 Basic Safety and Survival**
This course combines the four modules of SCTW Basic Safety Training: Basic Firefighting, Personal Safety Social Responsibility, Personal Survival and First Aid CPR, with a module on Proficiency in Survival Craft to provide a comprehensive introduction to safety and survival at sea. The course provides required practical lifeboat and lifesaving training for certification as a Lifeboatman by the U.S. Coast Guard. Hands on training will include time on a fire training field, work in pools with life rafts and survival gear and launching and rowing a lifeboat. (3:2-2)

**NAUT 1471 Introduction to Ships and Shipping**
This course provides instruction in subjects pertaining to a seafarer in training to become master or mate (pilot) of towing vessels or master of towing vessels (harbor assist). (1:1-0)

**NAUT 2171 Upgrade to Apprentice Mate**
This course provides instruction in subjects pertaining to a mariner in training to become master or mate (pilot) of towing vessels or master of towing vessels (harbor assist). (1:1-0)

**NAUT 2272 Radar Observer Unlimited**
This course covers the proper use of radar for risk assessment, collision avoidance, and navigation. Trainees use commercial radar equipment with landmasses, environmental effects and vessel returns generated by Transas simulation. (2:2-1)
NAUT 2274 Basic Stability and Ship Construction
This course provides the background knowledge for a thorough understanding of the calculations for vessel stability and trim, basic ship construction features and terminology, and principles of stability. Subjects include: ship dimensions, ship stresses, hull structure, rudders and propellers, displacement, buoyancy, static and initial stability, list, trim and free surface effect, principles, terms and procedures used in the determination of transverse, longitudinal and damage stability of ships. Also included are analyses of case studies involving loss of stability and how to perform trim and stability calculations. The course covers ship design and construction as it relates to all types of vessels as well. Topics include hull structure and components, vessel design process, design stresses, tonnage measurements and load line assignments. This course aims to meet the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-II/2 of STCW 1995 for the function Navigation at the Officer in Charge of a Navigational Watch on vessels of 500 or more gross tonnage (ITC) Level. (2:2-1)

NAUT 2278 Bridge Resource Management and Shiphandling

This course covers turning circle and stopping distance, effects of wind and current, man overboard maneuvers, shallow water effects, anchoring and steering control systems. It also covers fundamentals of shiphandling for vessels based on double and single-screw theory. Applied instruction in ship-handling techniques, includes: backing and filling; “Y-backing”; emergency stopping; flanking; and docking and undocking; and procedures and basic anchoring. It utilizes full mission visual simulation to reinforce theoretical lessons. (2:1.5-1.5)

NAUT 2364 Practicum
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. (3:0-30)

NAUT 2365 Practicum
This is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. (3:0-30)

NAUT 2471 Terrestrial and Coastal Navigation
This course is designed to teach the student the technical and practical concepts of terrestrial navigation. Areas covered include terrestrial coordinates, nautical charts, navigation publications, plotting and position lines, navigation aids, compass corrections, set and drift, charts and chart work, logbooks. This course provides the background introductory knowledge in planning a voyage and to support the tasks, duties and responsibilities in navigating vessels up to 200 tons. (4:3-2)

NAUT 2472 Integrated Operations for the Master Mariner
This course serves as a capstone to the entire AAS in Maritime Transportation program.

A seminar style course reviews and integrates all leaning in the program into the coherent body of knowledge necessary to serve as Master of vessels of up to 200 tons.

The course first builds the knowledge required for a license as Master, 100 GRT, which includes the applicable regulations and operational procedures necessary to operate a vessel of up to 100 Gross Tons in the Near Coastal/Inland/Great Lakes operating environment. Professional training includes navigation, tidal calculations, international and inland rules of the road, coastal pilotage, meteorology, anchoring and mooring, docking, and undocking operations, voyage and passage planning, stability and vessel construction, and marlinspike seamanship.

The course will then examine the body of knowledge necessary to Upgrade Master 100 Tons to Master 200 Tons course and presentation of the Certificate of Training at a Regional Exam Center WITHIN ONE YEAR of the completion of training, will satisfy the exam requirements of 46 CFT 10.207 for upgrade of a license from Master 100Tons Near Coastal to Master 200 Tons Near Coastal.

Students will develop a good understanding of the subjects for upgrade from not more than 100 to not more than 200-Ton Great Lakes, Inland and Near Coastal Master licenses. The level of understanding will meet the standard for passing the upgrade from not more than 100-Ton to not more than 200-Ton Coast Guard examination given in the Regional Examination Centers. (4:3-2)

NDTE 1301 Film Interpretation of Weldments
This is the study of radiographic film, including exploration of radiographic basics, interpretation, and causes and effects of discontinuities. Prerequisite: Reading level 4 (3:2-2)
NDTE 1354 Intermediate Ultrasonics: Flaw Detection and Sizing
This course covers applications of the ultrasonic techniques of materials testing for flaw sizing and characterization. Prerequisite: NDTE 1305 or NDTE 1405 (3:2-4)

NDTE 1405 Introduction to Ultrasonics: Level 1 & 2
This course covers the basic theory and applications of the ultrasonic techniques of materials testing covering the theoretical material from the certification test for Ultrasonic Level I American Society of Non-Destructive Testing. (4:3-3)

NDTE 1410 Liquid Penetrant/Magnetic Particle Testing: Level 1 & 2
This course is a theoretical study and practical application of the non-destructive testing techniques of penetrant and magnetic particle testing required by quality assurance and test personnel. (4:3-3)

NDTE 1440 Eddy Current Testing
This course covers the general principles of eddy current testing including theory, knowledge, and skills for basic examination; effects of material properties, probe types, calibration standards, and equipment selection. (4:3-3)

NDTE 2301 Advanced Ultrasonics: Phased Array and A.U.T.
Emphasis is placed on examination of components and characterization of flaws using advanced techniques. Prerequisite: NDTE 1354 or NDTE 1454 (3:2-4)

NDTE 2311 Preparation for Certified Welding Inspector Exam
This course covers welding fundamentals, welding inspection and code interpretation in preparation for the certified welding inspector examination. (3:2-4)

NDTE 2339 Pressure Piping Inspection
This course covers the general principles of pressure vessel inspection. It covers American Society of Mechanical Engineers (ASME) and American Petroleum Institute (API) documents that pertain to pressure piping inspection in preparation for the API 570 certification examination. (3:2-2)

OPTS 1166 Ophthalmic Practicum II
This course covers practical general training and experiences in the workplace. The College with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Prerequisite: OPTS 1311, OPTS 2441, OPTS 1266 (1:0-8)

OPTS 1167 Practicum - Opticianry/Ophthalmic Dispensing Optician
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: OPTS 1501 and 1309. Co-requisite: OPTS 2431 (1:0-8)

OPTS 1191 Special Topics in Opticianry/Dispensing Optician
This course covers recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be taken twice to improve student proficiency. (1:1-1)

OPTS 1266 Practicum - Opticianry/Ophthalmic Dispensing Optician
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: OPTS 1311, 2441 (2:0-16)

OPTS 1267 Opticianry/Ophthalmic Dispensing Optician
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: OPTS 1501, 1309, 2431, and 1167 (2:0-16)

OPTS 1309 Ophthalmic Laboratory I
This course emphasizes the finishing portion (bench) of the fabrication of spectacles. Topics include mark-up, blocking, edging, beveling, impact resistance, tinting, insertion, and inspection of single vision and multi-focal lenses. Co-requisite: OPTS 1501 (3:2-3)

OPTS 1311 Visual System
This is an overview of the visual system including the anatomy and physiology of the eye, related structures, and diseases. (3:3-0)
OPTS 1315 Basic Contact Lenses
This is an introduction to contact lens theory and practice. Topics include the history, development, and manufacture of contact lenses; lens materials, designs, fitting, and care techniques; and skill necessary for the accurate measurement of lens parameters. (3:2-3)

OPTS 1367 Practicum Opticianry/Ophthalmic Dispensing Optician
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. Prerequisite: OPTS 1167 (3:0-24)

OPTS 1371 Anatomy and Physiology for Eye Care Technology
This course is an introduction to the normal structure and function of the human body including the understanding and the relationship of the body structures in maintaining homeostasis as it is related to ophthalmic medical personnel. (3:3-0)

OPTS 1392 Special Topics in Opticianry/Dispensing Optician
This course covers recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be taken twice to improve student proficiency. (3:3-1)

OPTS 1401 Ophthalmic Dispensing
This course is an introduction to the basic principles of frame selection, styling, refractive errors, lens design, the use of tools and instruments used to measure and make adjustments necessary to properly dispense spectacles. (4:3-4)

OPTS 1471 Anatomy and Physiology for Eye Care Technology
This is an introduction to the normal structures and functions of the human body including the understanding and the relationship of the body structures in maintaining homeostasis as it is related to ophthalmic medical personnel. (4:4-0)

OPTS 1501 Ophthalmic Dispensing
This is an introduction to the basic principles of frame selection, styling, refractive errors, and lens design and to the use of tools and instruments used to measure and make adjustments necessary to properly dispense spectacles. (5:3-6)

OPTS 2266 Ophthalmic Practicum II
This course covers practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. Prerequisite: OPTS 1166 (2:0-16)

OPTS 2350 Ophthalmic Surgical Techniques
A continuation of Ophthalmic Techniques, this course introduces the student to aseptic and non-aseptic sterilization techniques used in the surgical field and provides knowledge and practice in scrubbing techniques used when assisting during ophthalmic surgical procedures. (3:2-3)

OPTS 2366 Practicum - Opticianry/Ophthalmic Dispensing Optician
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: OPTS 1311, 2441, 1166, 1266, 2445, and 2266 (3:0-24)

OPTS 2431 Advanced Ophthalmic Dispensing
This is an advanced study of the procedures necessary to dispense eyewear. Topics include lens aberrations, magnification, tilt, reflection, absorption and transmission, advanced lens materials, high-powered prescription considerations, and partial vision. Prerequisite: OPTS 1501 (4:2-6)

OPTS 2441 Ophthalmic Techniques
This course covers presentation of information and practical training in the techniques necessary to properly assist the refractionist or eye physician. Topics include visual acuity assessments and performance of various diagnostic tests. (4:2-6)

OPTS 2445 Advanced Ophthalmic Techniques
This is a continuation of Ophthalmic Techniques with an introduction to principles and techniques of various diagnostic evaluations. Topics include refractometry and retinoscopy, ophthalmic photography, applanation tonometry, and advanced clinical assessments. An overview of standardized tools prevalent in the field will be covered. Prerequisite: OPTS 2441 (4:2-6)

OSHT 1307 Construction Site Safety and Health
This is an introduction to safety requirements for construction sites including occupational health and environmental controls. Students must make a grade of “C” or better in order to be eligible for OSHA Construction certification. Prerequisites: EPCT 1307. Reading level 6, Writing level 6, and Math level 6 (3:3-0)

OSHT 1309 Physical Hazards Control
This is a study of the physical hazards and the methods of workplace design and redesign to control these hazards. Emphasis on the regulation codes and standards associated with the control of physical hazards. Prerequisites: EPCT 1307. Reading level 6, Writing level 6, Math level 6 (3:3-0)
**COURSE DESCRIPTIONS**

**OSHT 1313 Accident Prevention, Inspection and Investigation**
This course provides a basis of understanding the nature of occupational hazard recognition, accident prevention, loss reduction, inspection techniques, and accident investigation analysis. Prerequisites: EPCT 1307. Reading level 6, Writing level 6, Math level 6 (3:3-0)

**OSHT 1320 Energy Industrial Safety**
This course is an overview for industrial workers of state/federal regulations and guidelines which require industrial safety training. Topics include the 29 CFR 1910, 1926, and National Fire Protection Association (NFPA) 70E standards such as confined space entry, emergency action, lock out/tag out, arc flash, and other work related subjects. Prerequisites: Reading level 6, Writing level 6, Math level 6 (3:3-0)

**OSHT 1321 Fire Protection Systems**
This is a study of fire protection systems and their applications with emphasis on the fire prevention codes and standards. Prerequisites: EPCT 1307. Reading level 6, Writing level 6, Math level 6 (3:3-0)

**OSHT 2305 Ergonomics and Human Factors in Safety**
This is a study of the relationship of human behavior and ergonomics as applied to workplace safety. Prerequisites: EPCT 1307, MATH 1314 or MATH 1333, Reading level 6, Writing level 6, Math level 6 (3:3-0)

**OSHT 2309 Safety Program Management**
This course examines the major safety management issues that effect the workplace including safety awareness, loss control, regulatory issues, and human behavior modifications. Prerequisites: EPCT 1307. Reading level 6, Writing level 6, Math level 6 (3:3-0)

**OSHT 2320 Safety Training Presentation Techniques**
This course covers principles of developing and presenting effective industrial/business training. Emphasis on instructor qualifications and responsibilities, principles teaching including use of teaching aids and presentation skills. Prerequisites: EPCT 1307. Reading level 6, Writing level 6, and Math level 6 (3:3-0)

**OSHT 2380 Cooperative Education-Occupational Safety and Health Technology**
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 employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the work experience. Prerequisite: department chair approval (3:1-14)

**OSHT 2401 OSHA Regulations-General Industry**
This is a study of Occupational Safety and Health Administration (OSHA) regulations pertinent to general industry. Students must make a grade of “C” or better in order to be eligible for OSHA General Industry certification. Prerequisites: EPCT 1307. Reading level 6, Writing level 6, Math level 6 (4:4-0)

**PFPB 1308 Basic Pipefitting Skills**
This course covers mathematical operations necessary to calculate laying lengths of pipe fittings for fabrication. Includes identification and use of hand tools and power tools and identification of pipe, pipe fittings, flanges, and fasteners used in the trade. (3:2-2)

**PFPB 1343 Pipefitting Fabrication & Blueprint Reading**
This course is a continuation of basic pipefitting skills including fabrication, rigging, pipe hangers and supports, blueprint reading, standards and specifications, and trade math. (3:2-2)

**PFPB 2332 Advanced Pipefitting Standards, Specifications, and Installation**
The course covers skill development in motorized equipment, above-ground pipe installation valves, field routing and vessel trim, spring can supports, testing piping systems and equipment, basic plumbing, planning work activities, and Non-Destructive Testing (NDT). (3:2-2)

**PFPB 2333 Pipefitting: Advanced Fabrication and Installation**
This course covers advanced pipe fabrication and pipe alignment for rotating equipment. Includes identifying, describing, applying, and maintaining steam traps, in-line specialties, special piping, hot taps, and valves. (3:2-2)
**PHED 1101 Beginning Tennis**
This course introduces students to beginning skills and strategies in tennis. Lecture topics include history, rules, strategy (both singles and doubles), etiquette, proper care and selection of equipment and proper attire. (1:0-3)

**PHED 1102 Advanced Tennis**
This course includes instruction of advanced techniques, development of a variety of strokes, singles and doubles strategy in game situations and USTA tournament rules and procedures. Prerequisite: PHED 1101 or department chair approval (1:0-3)

**PHED 1104 Volleyball**
The student will receive instruction in the skills of passing, setting, spiking, service and blocking. Basic offensive and defensive strategies, rules, tournament play and officiating will be covered. (1:0-3)

**PHED 1105 Beginning and Intermediate Swimming**
This course offers explanation, demonstration, and practice in the five basic strokes, diving, survival skills, and basic elements of water safety. (1:0-3)

**PHED 1106 Canoeing**
Lectures, demonstrations and practice in the basic skills and techniques of canoeing are included. Additional fee required. (1:0-3)

**PHED 1109 Racquetball**
This course introduces the student to the rules, terms, safety, basic skills and strategies necessary to play racquetball. (1:0-3)

**PHED 1110 Advanced Racquetball**
This course includes instruction in advanced techniques, stroke development, offensive and defensive strategies in game situations, refereeing, serving techniques and strategies, and tournament play. Prerequisite: PHED 1109 or department chair approval (1:0-3)

**PHED 1111 Bowling**
This course introduces the student to the basic skills and techniques of bowling. Class hours will include instruction in etiquette, selection of equipment, basic techniques, scoring, computing handicaps, league play, and a variety of tournaments. This course is conducted off-campus and requires an additional fee. (1:0-3)

**PHED 1112 Badminton**
This course covers lectures, demonstrations and practice in the basic skills and techniques of badminton. (1:0-3)

**PHED 1113 Golf**
Basic skills in playing golf are stressed, including rules and etiquette of the game. (1:0-3)

**PHED 1114 Jogging**
A variety of methods and materials are presented in the area of cardiovascular and overall physical fitness. (1:0-3)

**PHED 1116 Water Aerobics**
This is a total body fitness program including cardiovascular and muscular endurance, strength and flexibility in the water. Emphasis is placed on improving muscle tone and maintaining a healthy body weight through water fun and fitness activities. (1:0-3)

**PHED 1117 Aerobic Activities**
This is a cardiovascular conditioning program designed to improve muscle tone and to help maintain a healthy body weight through fun and fitness activities. (1:0-3)

**PHED 1118 Advanced Aerobics**
This course is an advanced cardiovascular conditioning program. It is designed to increase energy, mental clarity and health as part of one's lifestyle. This class will incorporate high energy and low impact movements. Some classes include bench-step aerobics. Prerequisite: PHED 1117 or department approval (1:0-3)

**PHED 1119 Exercise for Health and Fitness**
This course is designed to provide students with an essential knowledge of exercise and fitness on health using lecture, reading, labs on health related fitness components and fitness activities. This course will provide an understanding of cardiovascular disease, risk factors and the role of exercise in prevention. Labs will include fitness testing, self assessments and maintenance programs, nutritional analysis, and individualized programs. A variety of activities will be used including low impact aerobics, power walking, bench stepping, toning and flexibility exercises, and weights. (1:0-3)

**PHED 1120 Basketball**
This course covers basic skills and techniques of basketball. (1:0-3)
PHED 1121 Slow Pitch Softball
This course covers development of basic techniques and skills of slow-pitch softball. (1:0-3)

PHED 1122 Soccer
This course covers lectures, demonstrations and practice in basic skills and techniques of soccer. (1:0-3)

PHED 1123 Weight Training
This course covers lectures, demonstrations and practice in the basic skills and techniques of weight training. (1:0-3)

PHED 1124 Advanced Weight Training
This course builds upon basic skills and knowledge of weight training. Topics covered include advanced lifting technique, advanced training theory, biomechanics, and in-depth understanding of the components of fitness. Prerequisite: PHED 1123 or instructor approval (1:0-3)

PHED 1126 Team Sports
This course provides the student with opportunities to participate in a variety of team sports. Volleyball, basketball, flag football, soccer, softball, and floor hockey are included. (1:0-3)

PHED 1130 Modern Dance
This course covers the fundamental techniques of movement and practice in beginning composition. (1:0-3)

PHED 1131 Advanced Modern Dance
This course covers advanced skills and techniques in movement with emphasis on choreography. (1:0-3)

PHED 1133 Beginning Jazz
This course includes basics and background in varied jazz dance forms, from blues to funky, stressing presentation and exploration to creative potential. (1:0-3)

PHED 1134 Yoga I
This is an introduction to basic yoga postures, breathing, and relaxation techniques with emphasis on physical practice. (1:0-3)

PHED 1135 Social Dance
This course is designed to offer students instruction in the fundamentals of social dance patterns and the more basic ballroom dance steps. (1:0-3)

PHED 1136 Beginning Tap Dance
This course covers fundamentals of beginning tap movement and basic steps with emphasis on combination and techniques. (1:0-3)

PHED 1137 Beginning Ballet
This is an introduction to the theory and terminology of classical ballet with emphasis on techniques including barre and centre work. (1:0-3)

PHED 1138 Intermediate and Advanced Ballet
This course covers theory and terminology of pointe and pas de deux with greater emphasis on centre and allegro work. (1:0-3)

PHED 1139 Yoga II
This course is an extension of Yoga I, designed to provide students with expanded knowledge of life management skills by placing emphasis on yoga’s strength, flexibility and stress reduction techniques. Lectures and practice will also focus on concentration techniques, nutrition and self-assessment. Prerequisite: Yoga I or instructor approval. (1:0-3)

PHED 1140 Martial Arts
Practice and training in the physical and psychological aspects of self-defense and sport is provided through vigorous flexibility, muscular endurance, and technical instruction. Technical instruction will include martial arts skills, combination tactics and sparring training using partner drills, solo work, and pad drills. (1:0-3)

PHED 1141 Advanced Jazz
This course is designed for the advanced jazz student who wants to develop technical expertise beyond the beginning level of jazz. Prerequisite: PHED 1133 (1:0-3)

PHED 1142 Fitness Swimming
This is a course designed to promote participation in the lifetime sport of swimming. Lectures and practice in the basic swimming strokes will be done. Daily workouts promoting cardiovascular endurance will be emphasized. Students should be good swimmers to take this class. (1:0-3)

PHED 1143 Fitness Walking
This course introduces students to walking as a lifetime fitness activity. Emphasis is placed on correct form and pacing to maintain working heart rate. Other topics covered are proper shoe selection, training principles for improved cardiovascular fitness, safety, and injury prevention. (1:0-3)

PHED 1144 Camping
This course includes lectures, demonstrations, practices and field trips related to camping. Other topics may be included such as hiking, backpacking and similar topics. (1:0-3)
PHED 1145 Kickboxing for Fitness
Kickboxing is a fitness program designed to improve muscle tone and cardiovascular endurance through constant motion and repetition using martial arts techniques. A variety of techniques and some martial arts applications are taught. (1:0-3)

PHED 1164 Introduction to Physical Fitness and Wellness
This course will provide an overview of the lifestyle necessary for fitness and health. Students will participate in physical activities and assess their fitness status. Students will be introduced to proper nutrition, weight management, cardiovascular health, flexibility, and strength training. (1:0-3)

PHED 1173 Precision Dance
This course covers skills and techniques of precision group performance designed for the experienced performer. The course may be taken a maximum of four times for credit. Prerequisite: instructor approval (1:0-3)

PHED 1178 Varsity Golf
This is a course designed for advanced golf players who are competing on a collegiate level. This course may be taken a maximum of four times for credit. Prerequisite: instructor approval (1:0-3)

PHED 1179 Varsity Tennis
This is a course designed for advanced tennis players who are competing on a collegiate level. The course may be taken a maximum of four times for credit. Prerequisite: instructor approval (1:0-3)

PHED 1301 Foundations of Kinesiology
The purpose of this course is to provide students with an introduction to human movement that includes the historical development of physical education, exercise science, and sport. This course offers the student both an introduction to the knowledge base, as well as information on expanding career opportunities. Prerequisite: Reading level 6 (3:3-0)

PHED 1304 Personal/Community Health
This course provides an introduction to the fundamentals, concepts, strategies, applications, and contemporary trends related to understanding personal and/or community health issues. This course also focuses on empowering various populations with the ability to practice healthy living, promote healthy lifestyles, and enhance individual well-being. Prerequisite: Reading level-6 (3:3-0)

PHED 1306 First Aid
Instruction and practice for emergency care. Designed to enable students to recognize and avoid hazards within their environment, to render intelligent assistance in case of accident or sudden illness, and to develop skills necessary for the immediate and temporary care of the victim. Successful completion of the course may enable the student to receive a certificate from a nationally recognized agency. (3:3-0)

PHED 1308 Sports Officiating
The purpose of the course is to study officiating requirements for sports and games with an emphasis on mechanics, rule interpretation, and enforcement. (3:3-0)

PHED 1338 Concepts of Physical Fitness
This course is designed to familiarize students with knowledge, understanding and values of health related fitness and its influence on the quality of life emphasizing the development and implementation of fitness programs. This course will not satisfy one hour of physical education activity. Prerequisite: Reading level-7 (3:3-0)

PHED 1346 Drug Use & Abuse
Study of the use, misuse and abuse of drugs and other harmful substances in today’s society. Physiological, sociological, pharmacological and psychological factors will be emphasized. This course will not satisfy one hour of physical education activity. (3:3-0)

PHED 2100 Varsity Conditioning I
This course provides students with opportunities to participate in varsity team sport conditioning. (1:0-3)

PHED 2101 Varsity Conditioning II
This course provides students with opportunities to participate in varsity team sport conditioning. (1:0-3)

PHED 2102 Varsity Conditioning III
This course provides students with opportunities to participate in varsity team sport conditioning. (1:0-3)

PHED 2103 Varsity Conditioning IV
This course provides students with opportunities to participate in varsity team sport conditioning. (1:0-3)

PHED 2106 Varsity Baseball I
This course is designed for skilled baseball players who are competing on a collegiate level. (1:0-3)

PHED 2107 Varsity Baseball II
This course is designed for skilled baseball players who are competing on a collegiate level. (1:0-3)
PHED 2108 Varsity Baseball III
This course is designed for skilled baseball players who are competing on a collegiate level. (1:0-3)

PHED 2109 Varsity Baseball IV
This course is designed for skilled baseball players who are competing on a collegiate level. (1:0-3)

PHED 2112 Varsity Basketball I
This course is designed for skilled basketball players who are competing on a collegiate level. (1:0-3)

PHED 2113 Varsity Basketball II
This course is designed for skilled basketball players who are competing on a collegiate level. (1:0-3)

PHED 2114 Varsity Basketball III
This course is designed for skilled basketball players who are competing on a collegiate level. (1:0-3)

PHED 2115 Varsity Basketball IV
This course is designed for skilled basketball players who are competing on a collegiate level. (1:0-3)

PHED 2118 Varsity Soccer I
This course is designed for skilled soccer players who are competing on a collegiate level. (1:0-3)

PHED 2119 Varsity Soccer II
This course is designed for skilled soccer players who are competing on a collegiate level. (1:0-3)

PHED 2120 Varsity Soccer III
This course is designed for skilled soccer players who are competing on a collegiate level. (1:0-3)

PHED 2121 Varsity Soccer IV
This course is designed for skilled soccer players who are competing on a collegiate level. (1:0-3)

PHED 2124 Varsity Softball I
This course is designed for skilled softball players who are competing on a collegiate level. (1:0-3)

PHED 2125 Varsity Softball II
This course is designed for skilled softball players who are competing on a collegiate level. (1:0-3)

PHED 2126 Varsity Softball III
This course is designed for skilled softball players who are competing on a collegiate level. (1:0-3)

PHED 2127 Varsity Softball IV
This course is designed for skilled softball players who are competing on a collegiate level. (1:0-3)

PHED 2130 Varsity Volleyball I
This course is designed for skilled volleyball players who are competing on a collegiate level. (1:0-3)

PHED 2131 Varsity Volleyball II
This course is designed for skilled volleyball players who are competing on a collegiate level. (1:0-3)

PHED 2132 Varsity Volleyball III
This course is designed for skilled volleyball players who are competing on a collegiate level. (1:0-3)

PHED 2133 Varsity Volleyball IV
This course is designed for skilled volleyball players who are competing on a collegiate level. (1:0-3)

PHED 2140 Advanced Martial Arts
This course features advanced training in the physical and psychological aspects of street defense situations through vigorous flexibility, muscular endurance, and technical instruction and practice. Technical instruction will include martial art skills, combinations, and advanced training techniques. In addition, psychological strategies such as cognitive behavior modification, vision-motor behavior rehearsal and stress inoculation training will be taught. Prerequisite: PHED 1140 or instructor approval (1:0-3)

PHED 2156 Taping and Bandaging
This course provides the fundamental therapeutic and preventative taping and bandaging techniques used in the prevention and care of athletic-related injuries to allow for recovery and for athletic participation. This course will not satisfy one hour of physical education activity. Co-requisite: PHED 2356 (1:0-1)

PHED 2356 Care and Prevention of Athletic Injuries
This course covers prevention and care of athletic injuries with emphasis on qualities of a good athletic trainer, avoiding accidents and injuries, recognizing signs and symptoms of specific sports injuries and conditions, immediate and long-term care of injuries, and administration procedures in athletic training. This course will not satisfy one hour of physical education activity. (3:3-0)
PHIL 1301 Introduction to Philosophy
This course provides a general overview of the historical development and the major systems of philosophic thought, the nature of man, knowledge, morality, social and political theory, and the existence of God. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

PHIL 1304 Introduction to World Religions
Introduction to World Religions is a survey course in philosophy designed to familiarize students with the major theories of world religions. Students will establish broad and multiple perspectives of religious theory and evaluate theories of religion. This course is a survey and critical examination of major theories concerning world religions. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

PHIL 2303 Logic I
This is a study of nature and methods of correct reasoning, deductive proof, fallacies, and arguments. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

PHIL 2306 Introduction to Ethics
This course offers a general overview of classical and contemporary theories concerning the good life, human conduct in society, moral and ethical standards and the nature, criteria, sources, logic, and validity of moral value judgments. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

PHIL 2307 Introduction to Social and Political Philosophy
This is a survey course in philosophy designed to familiarize students with the major theories concerning the organization of societies and governments. Students will establish broad and multiple perspectives of social and political theory and evaluate theories of justice and how to be a responsible member of society. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

PHRA 1243 Pharmacy Technician Certification Review
This course covers a review of major topics covered on the national Pharmacy Technician Certification Examination (PTCE). Prerequisites: Reading level 6, Writing level 6, Math level 6 Corequisites: PHRA 1360, PHRA 2360 (2:2-0)

PHRA 1301 Introduction to Pharmacy
This is an overview of the qualifications, operational guidelines, and job duties of a pharmacy technician. Prerequisites: Reading level 6, Writing level 6, Math level 6 (3:3-0)

PHRA 1305 Drug Classification
This is a study of pharmaceutical drugs, abbreviations, classifications, dosages, side effects, and routes of administration. (3:3-0)

PHRA 1309 Pharmaceutical Mathematics I
This course covers solving pharmaceutical calculation problems encountered in the preparation and distribution of drugs. (3:3-0)

PHRA 1313 Community Pharmacy Practice I
This course is an introduction to the skills necessary to process, prepare, label and maintain records of prescriptions in a community pharmacy to include customer service, count and pour techniques, prescription calculations, drug selection and preparation, over-the-counter drugs, inventory management and legal parameters. (3:2-3)

PHRA 1345 Compounding Sterile Preparations and Aseptic Technique
This is a study of the process of compounding sterile preparations and aseptic technique within legal and regulatory guidelines specified by USP 797 standards. Prerequisites: PHRA 1309, Reading level 6, Writing level 6, Math level 6 (3:2-3)

PHRA 1347 Pharmaceutical Mathematics II
This course focuses on advanced concepts of Pharmaceutical Mathematics I. Prerequisites: PHRA 1309, Reading level 6, Writing level 6, Math level 6 (3:3-0)

PHRA 1349 Institutional Pharmacy Practice
This course covers fundamentals of the diverse roles and practice of pharmacy technicians in an institutional pharmacy setting. In-depth coverage of hospital pharmacy organization, work flow and personnel, safety techniques, data entry, packaging and labeling operations, inpatient drug distribution systems including investigational drugs, continuous quality improvement and inventory control. Prerequisites: PHRA 1313 (3:2-3)

PHRA 1360 Clinical: Community Pharmacy
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: PHRA 1345, 1347, 1349, 1441, Reading level 6, Writing level 6, Math level 6 (3:0-12)

PHRA 1441 Pharmacy Drug Therapy and Treatment
This course is the study of therapeutic agents, their classifications, properties, actions, and effects on the human body and their role in the management of disease. Prerequisites: PHRA 1305 (4:4-0)
PHRA 2360 Clinical: Institutional Pharmacy
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: PHRA 1345, 1347, 1349, and 1441, Reading level 6, Writing level 6, Math level 6 (3:0-12)

PHTC 1311 Fundamentals of Photography
This course is an introduction to camera operation and image production, composition, supplemental lighting, and use of exposure meters and filters. Emphasis is on digital photography. Prerequisite: PHTC 1311 or ARTS 2356 or approval of department chair (3:2-4)

PHTC 2301 Intermediate Photography
This course is a continuation of fundamentals of photography. Emphasizes social, portrait, studio, fashion, theatrical, publicity, and event photography with digital photography processes and methods. Prerequisite: PHTC 1311 or ARTS 2356 or approval of department chair (3:2-4)

PHYS 1101 College Physics I (lab)
This course covers fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; with emphasis on problem solving. Prerequisites: MATH 1314 or higher and Reading level 7, Writing level 7, Math level 9; co-requisite: PHYS 1103 (3:3-0)

PHYS 1102 College Physics II (lab)
This course covers principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Prerequisites: PHYS 1101/1101; co-requisite: PHYS 1102 (3:3-0)

PHYS 1103 Stars and Galaxies (lab)
This lab survey course in astronomy examines the history of astronomy, the stars, galaxies, and the universe outside our solar system. Lab work will include nighttime observations. Prerequisites: Reading level 7, Writing level 7, Math level 9; co-requisite: PHYS 1103 (3:3-0)

PHYS 1104 The Solar System (lab)
This lab survey course in astronomy examines the history of astronomy; the sun and its solar system, including their origin; star and planet formation. Lab work will include nighttime observations. Prerequisites: Reading level 7, Writing level 7, Math level 9; co-requisite: PHYS 1304 (1:0-3)

PHYS 1301 College Physics I (lecture)
This lecture course covers the fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; with emphasis on problem solving. Prerequisites: MATH 1314 or higher and Reading level 7; co-requisite: PHYS 1101 (3:3-0)

PHYS 1302 College Physics II (lecture)
This course covers principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Prerequisite: PHYS 1301/1101; co-requisite: PHYS 1102 (3:3-0)

PHYS 1303 Stars and Galaxies (lecture)
This lecture survey course in astronomy examines the history of astronomy, the stars, galaxies, and the universe outside our solar system. Lab work will include nighttime observations. Prerequisites: Reading level 7, Writing level 7, Math level 9; co-requisite: PHYS 1103 (3:3-0)

PHYS 1304 The Solar System (lecture)
This lecture survey course in astronomy examines the history of astronomy; the sun and its solar system, including their origin; star and planet formation. Lab work will include nighttime observations. Prerequisites: Reading level 7, Writing level 7, Math level 9; co-requisite: PHYS 1104 (3:3-0)

PHYS 2125 University Physics I (lab)
This lab course covers the fundamental principles of physics, using calculus, for science, computer science, and engineering majors; the principles and applications of classical mechanics, including harmonic motion, physical systems and thermodynamics; and emphasis on problem-solving. It is designed to meet the needs of the pre-engineering student or physics major. Prerequisites: MATH 2413 or higher, and Reading level 7; co-requisites: PHYS 2325, MATH 2414 (1:0-3)

PHYS 2126 University Physics II (lab)
This lab course covers experiments supporting theoretical principles presented in PHYS 2326 involving the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, and optics; experimental design, data collection and analysis, and preparation of laboratory reports. Prerequisites: PHYS 2325/2125, and MATH 2414; co-requisite: PHYS 2326 (1:0-3)
PHYS 2325 University Physics I (lecture)
This course covers the fundamental principles of physics, using calculus, for science, computer science, and engineering majors; the principles and applications of classical mechanics, including harmonic motion, physical systems and thermodynamics; and emphasis on problem-solving. It is designed to meet the needs of the pre-engineering student or physics major. Prerequisites: MATH 2413 or higher and Reading level 7; co-requisites: PHYS 2125, MATH 2414 (3:3-0)

PHYS 2326 University Physics II (lecture)
In this continuation of PHYS 2325, the topics covered include the principles of physics for science, computer science, and engineering majors, using calculus, involving the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, and optics. Prerequisites: PHYS 2325/2125 and MATH 2414; co-requisite: PHYS 2126 (3:3-0)

PHYS 2389 Academic Cooperative
This is an instructional program designed to integrate on-campus study with practical hands-on work experience in the physical sciences. In conjunction with class seminars, the individual student will set specific goals and objectives in the scientific study of inanimate objects, processes of matter and energy, and associated phenomena. Prerequisites: Eight hours of physics; Reading level 7, Writing level 7, Math level 7 (3:1-8)

PLAB 1223 Phlebotomy
This course covers skill development in the performance of a variety of blood collection methods using proper techniques and standard precautions. It includes vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. It covers infection prevention, patient identification, specimen labeling, quality assurance, specimen handling, processing, accessioning, professionalism, ethics, and medical terminology. (2:2-1)

PMHS 2366 Practicum-Mental Health Services Technician
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: must complete 28 hours in the program before the practicum (3:0-21)

POFI 1349 Spreadsheets
Intermediate-level instruction includes in-depth coverage in the use of spreadsheet software for business applications. Topics include worksheet creation, modification, and graphics. (3:3-1)

POFM 1317 Medical Administrative Support
This course covers instruction in medical office procedures including appointment scheduling, medical records creation and maintenance, telephone communications, coding, billing, collecting, and third party reimbursement. (3:3-1)

POFI 1301 Business English
This course is an introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business. (3:3-0)

POFT 1319 Records and Information Management I
This 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. (3:3-0)

POFT 1325 Business Math Using Technology
This course offers skill development in business math problem-solving using electronic technology. (3:3-0)

POFT 1328 Business Presentations
This course offers skill development in planning and conducting business presentations including communication and media skills. Prerequisite: BCIS 1305 (3:3-1)

POFT 2301 Intermediate Keyboarding
This course offers a continuation of keyboarding skills emphasizing acceptable speed and accuracy levels and formatting documents. Emphasis is on proofreading, editing, following instructions, and keying documents from various types of copy. Prerequisite: BCIS 1305 (3:3-1)
**POFT 2364 Practicum**
This course offers practical, general workplace training supported by an individualized learning plan developed by the employer, the College, and the student. The learning plan relates the workplace training and experiences to the student’s general and technical course of study. Prerequisite: 15 credit hours of courses in this program which must include at least one of the following courses: ACNT 1304, POFT 1341, POFT 1325, POFT 1328, or POFT 2301. A program GPA of at least 2.0 is required, or Department approval. (3:0-21)

**PSTR 1301 Fundamentals of Baking**
This is a course in fundamentals of baking including dough, quick breads, pies, cakes, cookies, tarts, and doughnuts, and instruction in flours, fillings, and ingredients. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the use of proper flours. Co-requisite: CHEF 1205 (3:2-4)

**PSTR 1306 Cake Decorating I**
This is an introduction to skills, concepts and techniques of cake decorating. Co-requisites: PSTR 1301 and CHEF 1205 (3:2-4)

**PSTR 1342 Quantity Bakeshop Production**
This course is a study of advanced baking techniques to include volume production of a variety of breads and desserts. Co-requisites: PSTR 1301 and CHEF 1205 (3:1-5)

**PSTR 1391 Special Topics in Baker/Pastry Chef**
This course covers topics that 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 taken twice to improve student proficiency. Co-requisites: CHEF 1205, PSTR 1342, PSTR 1301, (3:2-4)

**PSTR 2301 Chocolates and Confections**
This course covers production and decoration of traditional truffles, marzipan, molded and hand-dipped chocolates, caramels, nougats, and pate de fruit. Prerequisites: CHEF 1205, PSTR 1301, PSTR 1306, PSTR 1342; Co-requisite: PSTR 2307 (3:2-4)

**PSTR 2307 Cake Decorating II**
This is a course in decoration of specialized and seasonal products. Produce and decorate a variety of commercially acceptable cakes and other bakery products using a variety of techniques. Pre-requisite: CHEF 1205, PSTR 1301, PSTR 1342, PSTR 1306, Co-requisites: PSTR 2301 (3:2-4)

**PSTR 2331 Advanced Pastry Shop**
This is a study of classical desserts, French and international pastries, hot and cold desserts, ice creams and ices, chocolate work, and decorations. Emphasis on advanced techniques. Prerequisite or co-requisite: PSTR 1301, Co-requisite: CHEF 1205 (3:2-4)

**PSTR 2365 Practicum - Baking and Pastry**
This is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Departmental Approval required. 11 completed credit hours to include CHEF 1205, Chef 1401, and 6 additional credit hours in CHEF, PSTR, IFWA, or RSTO prior to taking PSTR 2365 Practicum. (3:0-21)

**PSTR 2431 Advanced Pastry Shop**
This is a study of classical desserts, French and international pastries, hot and cold desserts, ice creams and ices, chocolate work, and decorations, with an emphasis on advanced techniques. (4:3-3)

**PSTR 2470 Healthy Baking and Pastries**
This course covers topics that address recently identified current events, skills, knowledge’s and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course covers the principles and production of healthy alternatives to traditional baked and pastry goods. Prerequisite: PSTR 1301 (4:3-3)

**PSYC 1300 Learning Framework**
The purpose of PSYC 1300/EDUC 1300 is to enable you to develop effective academic behaviors for college success. The course includes a balance between the research and theory in the psychology of learning, cognition, and motivation and how to apply what you learn to becoming successful in a college setting. You will understand the factors that affect learning and how to apply what you learn to the development of successful learning strategies. You will use assessment instruments, such as learning inventories, to help you identify your own strengths and weaknesses as a strategic learner. You are ultimately expected to integrate and apply the learning skills discussed across your own academic courses and program and become an effective and efficient learner. As you develop these skills, you should be able to continually draw from the theoretical models and apply this to your courses and to your life. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

**PSYC 2301 General Psychology**
This course is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes. Prerequisite: Reading level 7, Writing level 7 (3:3-0)
PSYC 2306 Human Sexuality
This course will provide an overview of the broad field of human sexuality. Topics will be covered from various perspectives - biological, sociological, anthropological, etc., but will focus primarily on the psychological perspective. The goal is for each student to learn factual, scientifically-based information that will provoke thought and contribute to his/her own decision-making on sexual issues outside of the classroom. Prerequisites: SOCI 1301 or PSYC 2301, Reading level 7, Writing level 7 (3:3-0)

PSYC 2308 Child Psychology
This course will address psychological development from conception through middle childhood with references to physical, cognitive, social and personality changes. Students will examine the interplay of biological factors, human interaction, social structures and cultural forces in development. Prerequisites: PSYC 2301, Reading level 7, Writing level 7 (3:3-0)

PSYC 2314 Lifespan Growth and Development
This course is a study of social, emotional, cognitive and physical factors and influences of a developing human from conception to death. Prerequisites: PSYC 2301, Reading level 7, Writing level 7 (3:3-0)

PSYC 2315 Psychology of Adjustment
This course is the study of the processes involved in adjustment of individuals to their personal and social environments. This course is designed to study the basic principles and various theories of effective behavior which underlie personal adjustment. This course probes the human dilemma, the personal and social context of behavior, the search for values and methods for personal growth. Prerequisites: PSYC 2301, Reading level 7, Writing level 7 (3:3-0)

PSYC 2317 Elementary Statistics
This course is a study of the basic statistical concepts and techniques of descriptive and inferential statistics as used in psychological and educational research. Included are frequency distributions and graphs, measures of central tendency and variability, interpretation of individual scores, correlations and prediction, the logic of inferential statistics, t-test, analysis of variance, and some nonparametric statistics including chi square. Prerequisites: PSYC 2301, Reading level 7, and Writing level 7 (3:3-0)

PSYC 2319 Introduction to Social Psychology
This course studies behavior of the individual in the group. The course includes group interaction, leadership, motivation, problems in attitudes, prejudice, prosocial behavior, aggression, love, environmental influences on behavior and gender identity and sexual behavior. Prerequisites: PSYC 2301, Reading level 7, and Writing level 7 (3:3-0)

PSYT 1371 Mental Health Legal and Ethical Issues
This course covers concepts of confidentiality, ethics, mental health legislation, regulations relating to the maintenance and use of mental health and substance abuse information and mental records. Prerequisites: Reading level 6, Writing level 6 (3:3-0)

PSYT 1471 Basic Nursing Skills for Mental Health/Psychiatric Technicians
This course is a mastery of entry level nursing skills and competencies for a variety of healthcare settings. It utilizes the nursing process as the foundation for all nursing interventions specific to mental health/psychiatric facilities. Prerequisites: Reading level 6 and Writing level 6 (4:2-4)

PSYT 2301 Psychology of Group Dynamics
This is an exploration of group counseling skills, techniques, stages of group development, and confidentiality and ethics. Prerequisite: PSYC 2301 (3:3-0)

PSYT 2331 Abnormal Psychology
This is an examination and assessment of the symptoms, etiology, and treatment procedures of mental, emotional and behavioral disorders. Prerequisite: PSYC 2301 (3:3-0)

PSYT 2339 Counseling Theories
This is an examination of major theories of various treatment modalities. Topics include reality therapy, psychodynamics, grief therapy, person-centered therapy, rational emotive therapy, and cognitive behavioral approaches. Prerequisites: Reading level 6, Writing level 6 (3:3-0)

PTAC 1302 Introduction to Process Technology
This is an introduction overview to the various processing industries. Prerequisites: Reading level 7, Writing level 7, Math level 6 (3:3-0)

PTAC 1310 Process Technology I - Equipment
This course is an introduction to the use of common processing equipment. Prerequisites: Reading level 7, Writing level 7, Math level 6 (3:2-4)

PTAC 1332 Process Instrumentation I
This is a study of instruments and control systems used in the process industry including terminology, process variables, symbology, control loops, and basic troubleshooting. As a part of the course, each student will identify and explain the function of the various instruments used in the process industry, diagram the process control elements in a control loop, and define and apply terms and symbols used in instrumentation. Prerequisites: MATH 1333 or MATH 1314 or higher, Reading level 7, Writing level 7, Math level 6 (3:3-1)
PTAC 2314 Principles of Quality
In this study of the background and application of quality concepts, topics include team skills, quality tools, statistics, economics and continuous improvement. As part of the course, students use statistical process control to collect, organize, and analyze data; describe the principles of quality control; demonstrate team skills; and apply quality tools to process systems. Prerequisites: Reading level 7, Writing level 7, Math level 6 (3:3-0)

PTAC 2420 Process Technology II-Systems
This is a study of the various process systems, including related scientific principles. As a part of this course, students describe the purpose and function of common process systems; and operate each process system. Prerequisite: Reading level 7, Writing level 7, Math level 6 (4:3-3)

PTAC 2438 Process Technology III - Operations
This course emphasizes activities associated with the hands-on operation of process equipment. Prerequisites: PTAC 1332 and PTAC 2420, Reading level 7, Writing level 7, Math level 6 (4:3-3)

PTAC 2446 Process Troubleshooting
This course offers instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems. Prerequisites: PTAC 1332 and PTAC 2420, Reading level 7, Writing level 7, Math level 6 (4:3-3)

PTHA 1201 The Profession of Physical Therapy
This course covers the introduction to the profession of physical therapy and the role of the physical therapist assistant. Prerequisites: Reading level 7, Math level 9, and Writing level 7 (2:2-0)

PTHA 1305 Basic Patient Care Skills
This course covers the application of basic patient handling, functional skills, communication, and selected data collection techniques. Prerequisites: Reading level 7, Math level 9, and Writing level 7 (3:2-3)

PTHA 1313 Functional Anatomy
This course covers the relationship of the musculoskeletal and neuromuscular systems to normal and abnormal movement. Prerequisites: Reading level 7, Math level 9, and Writing level 7 (3:2-4)

PTHA 1321 Pathophysiology for the PTA
This course covers the study of pathophysiology of diseases/conditions encountered in physical therapy. Prerequisites: Reading level 7, Math level 9, Writing level 7, PTHA 1431, 2409, and 2201, BIOL 2404 OR BIOL 2301, 2101, 2302, and 2102, ENGL 1301.(3:3-0)

PTHA 1360 Clinical I-PTA
This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: PTHA 1321 and 1191 (3:0-12)

PTHA 1431 Physical Agents
This course covers biophysical principles, physiological effects, efficacy, and application of physical agents. Prerequisites: Reading level 7, Math level 9, Writing level 7 PTHA 1201, 1305, and 1313, BIOL 2404 OR BIOL 2301, 2101, 2302, and 2102. (4:2-4)

PTHA 2201 Essentials of Data Collection
This course covers data collection techniques used to assist in patient/client management Prerequisites: Reading level 7, Math level 9, Writing level 7, PTHA 1201, 1305, and 1313; BIOL 2404 or BIOL 2301, 2101, 2302, and 2102. (2:1-3)

PTHA 2239 Professional Issues
This is a discussion of professional issues and behaviors related to clinical practice and preparation for transition into the workforce. Prerequisites: PTHA 1321 and 1191 (2:2-0)

PTHA 2250 Current Concepts in Physical Therapy
This course covers current concepts, skills, and knowledge in the provision of physical therapy services. Includes enhancement of professional development. Prerequisites: Reading level 7, Math level 9, Writing level 7, PTHA 1431, 2409, and 2201, BIOL 2404 or BIOL 2101, 2301, 2102 and 2302, ENGL 1301. (2:2-0)

PTHA 2409 Therapeutic Exercise
This course covers concepts, principles, and application of techniques related to therapeutic exercise and functional training. Prerequisites: Reading level 7, Math level 9, Writing level 7, PTHA 1201, 1305, 1313, BIOL 2404 OR BIOL 2301, 2101, 2302, and 2102. (4:3-3)

PTHA 2431 Management of Neurological Disorders
This course is an advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected neurological disorders. Includes enhancement of professional development. Prerequisites: Reading level 7, Math level 9, Writing level 7, PTHA 1321, and 2250. (4:3-4)

PTHA 2435 Rehabilitation Techniques
This is a study of comprehensive rehabilitation of selected diseases and disorders. Prerequisites: PTHA 1321 and 1191 (4:3-3)
PTHA 2460 Clinical II-PTA
This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: PTHA 1360, 2531, 2435 and 2239 (4:0-16)

PTHA 2461 Clinical III-PTA
This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: PTHA 1360, 2531, 2435 and 2239 (4:0-16)

PTHA 2531 Management of Neurological Disorders
This is a study of comprehensive rehabilitation techniques of selected neurological disorders. Prerequisites: PTHA 1321 and 1191 (5:3-4)

PTRT 1301 Introduction to Petroleum Industry
This is an introduction to the various aspects of petroleum industry including equipment, systems, instrumentation, operations, and the various scientific principles. Prerequisites: Reading level 7, Writing level 7, Math level 7 (3:3-0)

QCTC 1341 Statistical Process Control
This course focuses on components of statistics including techniques of collection, presentation, analysis, and interpretation of numerical data as applied to statistical control. It stresses application of correlation methods, analysis of variance, dispersion, sampling quality control, reliability, mathematical models, and programming. Prerequisite: Math level 7 (3:2-2)

QCTC 1343 Quality Assurance
This course provides information on principles and applications designed to introduce quality assurance. (3:2-2)

QCTC 1376 Testing and Inspection Systems
This is a study of testing and inspection systems including pertinent specifications, inspection tools, gauges, instruments and mechanisms in illustrating the need for maintaining quality to establish standards. It covers the applications and methods of solving quality control and inspection problems using the appropriate testing and inspection methods such as AET, ET, LT, MT, PT, RT, UT and VT. (3:2-4)

QCTC 1378 Metrology
This is the study of the terminology, methodology, and practice of measurement systems and equipment in the calibration and use of basic measuring tools. (3:2-4)

QCTC 2331 Standards
This is a study of philosophy and theory of appropriate standards, organizations, and systems integration relating to the standards criteria in society. (3:2-2)

RADR 1166 Practicum I
This course is the study of the practical, general workplace training supported by an individualized learning plan/syllabus developed by the employer, college, and student. Prerequisite: Acceptance into the Medical Radiography Program. (1:0-9)

RADR 1201 Introduction to Radiography
This course is an overview of the historical development of radiography, basic radiation protection, an introduction to medical terminology, ethical and legal issues for health care professionals, and an orientation to the profession and the health care system. Prerequisite: Reading level 7. Prerequisite or co-requisite: ENGL 1301 (2:2-0)

RADR 1202 Radiographic Image Evaluation I
This course is the study of the scientific process of radiographic image evaluation. Prerequisite: Acceptance into the Medical Radiography Program. (2:2-1)

RADR 1203 Patient Care
This course is an introduction in patient assessment, infection control procedures, emergency and safety procedures, communication and patient interaction skills, and basic pharmacology. Prerequisite: Acceptance into the Medical Radiography Program. (2:2-1)

RADR 1213 Principles of Radiographic Imaging I
This course is the study of radiographic image quality and the effects of exposure variables. Prerequisites: RADR 2209, 1311, 1202, 1203, 1166 (2:2-1)

RADR 1250 Radiographic Image Evaluation II
This course is the study of the assessment of radiographic images. Prerequisites: RADR 1411, 1166, 1202, 1203, 2209 (2:2-1)

RADR 1266 Practicum II
This course offers practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. Prerequisites: RADR 1166, 1203, 2209, 1411, 1202 (2:0-16)
RADR 1267 Practicum III
This course is the study of the practical, general workplace training supported by an individualized learning plan/syllabus developed by the employer, College, and student. Prerequisites: RADR 1266, 1313, 2401, 1250 (2:0-16)

RADR 1311 Basic Radiographic Procedures
This course is an introduction to radiographic positioning terminology, the proper manipulation of equipment, positioning and alignment of the anatomic structure and equipment, and evaluation of images for proper demonstration of basic anatomy. Prerequisite: Acceptance into the Medical Radiography Program (3:2-3)

RADR 1313 Principles of Radiographic Imaging I
This course is the study of radiographic image quality and the effects of exposure variables. Prerequisites: RADR 2209, 1411, 1202, 1203, 1166 (3:3-1)

RADR 1411 Basic Radiographic Procedures
This course is an introduction to radiographic positioning terminology, the proper manipulation of equipment, positioning and alignment of the anatomic structure and equipment, and evaluation of images for proper demonstration of basic anatomy. Prerequisite: Acceptance into the Medical Radiography Program (4:3-3)

RADR 2205 Principles of Radiographic Imaging II
This course is the study of radiographic image quality and the effects of exposure variables, and the synthesis of all variables in image production. (2:2-1)

RADR 2209 Radiographic Imaging Equipment
This course is the study of the equipment and physics of x-ray production. Includes basic x-ray circuits. Also examines the relationship of conventional and digital equipment components to the imaging process. Prerequisite: Acceptance into the Medical Radiography Program (2:2-1)

RADR 2217 Radiographic Pathology
This course is the study of the disease processes and their appearance on radiographic images. Prerequisites: RADR 2233, 2313, 2266 (2:2-0)

RADR 2233 Advanced Medical Imaging
This course is the study of the specialized imaging modalities. Includes concepts and theories of equipment operations and their integration for medical diagnosis. Prerequisites: RADR 2236, 2305, 2331, 1267 (2:2-0)

RADR 2236 Special Patient Applications
This course is the study of the advanced concepts of pediatrics, geriatrics, trauma, history documentation, and electrocardiogram (ECG). Includes phlebotomy, venipuncture and concepts of pharmacology. Prerequisites: RADR 1266, 1313, 2401, 1250 (2:2-1)

RADR 2266 Practicum IV
This course is the study of the practical, general workplace training supported by an individualized learning plan/syllabus developed by the employer, college, and student. Prerequisites: RADR 1267, 2331, 2305, 2236 (2:0-20)

RADR 2267 Practicum V
This course is the study of the practical, general workplace training supported by an individualized learning plan/syllabus developed by the employer, College, and student. Prerequisites: RADR 2266, 2313, 2233 (2:0-18)

RADR 2301 Intermediate Radiographic Procedures
This course is a continuation of the study of the proper manipulation of radiographic equipment, positioning and alignment of the anatomic structure and equipment, and evaluation of images for proper demonstration of anatomy. Prerequisites: RADR 1311, 1166, 1202, 1203, 2209 (3:2-3)

RADR 2305 Principles of Radiographic Imaging II
This is a continuation of Radiographic image quality and the effects of exposure variables, and the synthesis of all variables in image production. Prerequisites: RADR 1250, 2401, 1313, 1266 (3:3-1)

RADR 2313 Radiation Biology and Protection
This course is the study of the effects of radiation exposure on biological systems. Includes typical medical exposure levels, methods for measuring and monitoring radiation, and methods for protecting personnel and patients from excessive exposure. Prerequisites: RADR 1267, 2331, 2305, 2236 (3:3-0)

RADR 2331 Advanced Radiographic Procedures
This course is a continuation of positioning and alignment of anatomic structures and equipment, evaluation of images for proper demonstration of anatomy and related pathology. Prerequisites: RADR 1250, 2301, 1213, 1266. (3:2-4)

RADR 2335 Radiologic Technology Seminar
This is a capstone course focusing on the synthesis of professional knowledge, skills, and attitudes in preparation for professional employment and lifelong learning. Prerequisites: RADR 2233, 2313, 2266 (3:3-1)
RADR 2340 Sectional Anatomy for Medical Imaging
This course presents an in-depth coverage of anatomic relationships that are present under various sectional orientations. Prerequisite: ARRT registered or registry eligible within 6 months or departmental approval. (3:3-0)

RADR 2401 Intermediate Radiographic Procedures
This course is a continuation of the study of the proper manipulation of radiographic equipment, positioning and alignment of the anatomic structure and equipment, and evaluation of images for proper demonstration of anatomy. Prerequisites: RADR 1411, 1166, 1202, 1203, 2209 (4:3-3)

RBPT 2345 Onsite Power Generation and Renewable Energy
This course is a study of the application of residential onsite power generation with an emphasis on renewable energy. Includes systems that produce electrical energy and thermal energy. Also covers determination of residential energy loads and their comparison to onsite power generation and an exploration of off-grid, on-grid, net-zero, and distributed applications. (3:2-2)

RBTC 1355 Sensors and Automation
This course is a study of the basic principles of industrial sensors for automated systems with an emphasis on the operation and application of position, rate, proximity, opto-electronics, ranging, and pressure switches. Prerequisite: Reading level 4 (3:2-2)

READ 0110 Developmental Reading (NCBO)
This course is a study of the fundamental reading skills to develop comprehension, vocabulary, and rate. (1:0.5-0.5)

READ 0308 Basic Reading Skills
This course is designed to improve basic reading skills. Following assessment, the student will be taught word recognition, basic vocabulary skills, and literal comprehension, such as main idea and details. This course is not applicable to any degree. Prerequisite: Reading level 2 (3:3-2)

READ 0309 Reading Comprehension
This intermediate reading course is designed to continue the sequential process of reading with emphasis on reading comprehension and vocabulary development. Selected readings will be used for intensive work in literal and inferential meanings. This course is not applicable to any degree. Prerequisite: a grade of C or above in READ 0308 or reading score within defined range. (3:3-1)

READ 0310 College Reading Techniques
This course is designed for the development of reading skills beyond the basic skills on an individual basis. Emphasis is placed on further development of comprehension, vocabulary, and interpretation of nonfiction articles and reading speed. This course is not applicable to any degree. Prerequisite: a grade of C or above in READ 0309 or reading score within defined range. (3:3-0)

READ 0311 Speed Reading
This course is designed primarily for students who read at or above the 12th grade reading level. Emphasis is placed on increased comprehension, reading speed, critical reading, vocabulary expansion and reading flexibility. This course is for personal enrichment; it is not part of our sequential reading program nor does it transfer as credit toward any degree. Prerequisite: Reading level 7 (3:3-0)

RELE 1201 Principles of Real Estate I
This is a beginning overview of licensing as a real estate broker or salesperson. It 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. It covers at least three hours of classroom instruction on federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. It fulfills at least 30 to 60 hours of required instruction for salesperson license. (2:2-0)

RELE 1211 Law of Contracts
This course focuses on elements of a contract, offer and acceptance, statute of frauds, specific performance and remedies for breach, unauthorized practice of law, commission rules relating to use of adopted forms, and owner disclosure requirements. (2:2-0)

RELE 1238 Principles of Real Estate II
This is a continuing overview of licensing as a broker or salesperson. It includes ethics of practice as a license holder, titles to and conveyance of real estate, legal descriptions, deeds, encumbrances or liens, distinctions between personal and real property, appraisal, finance and regulations, concluding procedures, and real estate mathematics. It covers at least three hours of classroom instruction on federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. It fulfills at least 30 of 60 hours of required instruction for salesperson license. (2:2-0)
RELE 1300 Contract Forms and Addenda
This course is the study of promulgated contract forms, which shall include but is not limited to unauthorized practice of law, broker-lawyer committee, current promulgated forms, commission rules governing use forms and case studies involving use of forms. (3:3-0)

RELE 1303 Real Estate Appraisal
This is the 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. It is recommended that the student should take or have taken RELE 1201. (3:3-0)

RELE 1307 Real Estate Investments
This is a study of the characteristics of real estate investments. This includes techniques of investment analysis, time-valued money, discounted and non-discounted investment criteria, leverage, tax shelters, depreciation, and applications to property tax. It is recommended that the student should take or have taken RELE 1201. (3:3-0)

RELE 1309 Real Estate Law
This is a study in legal concepts of real estate, land description, real property rights, estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of title. It is recommended that the student should take or have taken RELE 1201. (3:3-0)

RELE 1319 Real Estate Finance
This is the study 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, Community Reinvestment Act, and the state housing agency. (3:3-0)

RELE 1321 Real Estate Marketing
The study of real estate professionalism and ethics, characteristics of successful salespersons, time management, psychology of marketing, listing procedures, advertising, negotiation and closing financing; and the Deceptive Trade Practices-Consumer Protection Act. It is recommended that you take or have taken RELE 1201. (3:3-0)

RELE 1323 Real Estate Computer Application
This course is a study of the availability of technology, especially software, and its ability to help a real estate agent become more productive. It includes data base mapping interest, software application, and the use and application of social media. (3:2-2)

RELE 1325 Real Estate Mathematics
This course covers basic arithmetic skills. Includes mathematical logic, percentages, interest, time value of money, depreciation, amortization, proration, and estimation of closing statement. (3:3-0)

RELE 2301 Law of Agency
This is a study of law of agency including 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 representation procedures, and the disclosure of an agency. (3:3-0)

RELE 2331 Real Estate Brokerage
This course is 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. It is recommended that the student should take or have taken RELE 1201. (3:3-0)

RELE 2366 Practicum-Real Estate
This is 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 paid or unpaid learning experience. 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. Prerequisite: must have a job (paid or unpaid) working in a real estate related position at least 20 hours per week (3:0-21)

RELE 2367 Practicum-Real Estate
This is 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. 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. Prerequisite: must have a job (paid or unpaid) working in a real estate related position at least 20 hours per week (3:0-21)
RNSG 1105 Nursing Skills I
The course covers the study of the concepts and principles necessary to perform basic nursing skills for the adult patients; and demonstrate competence in the performance of nursing procedures. Content includes knowledge, judgment, skills and professional values within a legal/ethical framework. Prerequisite: admission to the nursing program. (1:0-3).

RNSG 1108 Dosage Calculations for Nursing
This course offers expanded training in the general principles of medication administration including determination of dosage, preparation, safe administration, and documentation of multiple forms of drugs. Instruction includes reading, interpreting, and solving dosage calculation problems utilizing various systems of measurement. It is a prerequisite for program admission. (1:1-0)

RNSG 1115 Health Assessment
This course covers development of skills and techniques required for a comprehensive nursing health assessment within a legal/ethical framework. Pre-requisite: Admission to the nursing program. (1:0-3)

RNSG 1144 Nursing Skills II
This is a study of the concepts and principles necessary to perform intermediate or advanced nursing skills for the adult patient; and demonstrate competence in the performance of nursing procedures. Content includes knowledge, judgment, skills and professional values within a legal/ethical framework. (1:0-4)

RNSG 1160 Clinical Nursing Introduction
This course is a health-related work-based experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. This introductory level course helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Clinical education is an unpaid learning experience. (1:0-6)

RNSG 1161 Clinical - Registered Nursing
This course covers 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. (1:0-6)

RNSG 1166 Practicum, Nursing Transition
This is an intermediate or advanced type of health professions work-based course that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum may be paid or unpaid learning experience. Prerequisite for Paramedic to RN includes RNSG 1413, and prerequisite or co-requisite: RNSG 2207 (1:0-7)

RNSG 1191 Special Topics in Nursing
This course covers 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. Prerequisite: admission to the ADN program and approval of the department chair. Note: 1-2 credit hours available on individual basis. (1 or 2: 0-1 or 2)

RNSG 1215 Health Assessment
This course covers development of skills and techniques required for a comprehensive nursing health assessment within a legal/ethical framework. Prerequisite: Department chair approval (2:1-2)

RNSG 1227 Transition to Professional Nursing
Content includes health promotion, expanded assessment, analysis of data, critical thinking skills and systematic problem solving process, pharmacology, interdisciplinary teamwork, communication, and applicable competencies in knowledge of systematic problem solving, critical thinking skills, and professional values within a legal/ethical framework throughout the lifespan. Prerequisite: Admission to the ADN Transition Program. (2:1-2)

RNSG 1251 Care of the Childbearing Family
This is a study of concepts related to the provision of perinatal nursing care for childbearing families. Content includes knowledge, judgment, skills, and professional values within a legal/ethical framework. Topics may include selected complications. (2:2-0)

RNSG 1260 Clinical: Concepts of Professional Nursing Practice I for Articulating Students
This is a health related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to the ADN Mobility program. Co-requisites: RNSG 1209 and 1417 (2:0-12)
RNSG 1261 Clinical Nursing Common Concepts
This course is a health-related work-based experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. This introductory level course helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Clinical education is an unpaid learning experience. (2:0-8)

RNSG 1262 Clinical Nursing Complex Concepts
This course is 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. This intermediate level course helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Clinical education is an unpaid learning experience. (2:0-6)

RNSG 1263 Clinical Nursing Childbearing Families
This course is 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. This intermediate level course helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Clinical education is an unpaid learning experience. (2:0-6)

RNSG 1271 Concepts of Adult Health
This course provides instruction for the licensed vocational nurse (LVN) and certified paramedic transitioning into the role of the professional nurse as a provider of patient-centered care, patient safety advocate, member of health care team, and member of the profession. Study of the concepts of caring for adult patients and families with medical-surgical health care needs related to body systems, emphasizing knowledge, judgment, skills, and professional values within a legal/ethical framework. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of major concepts. Prerequisite: Admission into ADN Program. Co-requisite: RNSG 1161 (2:2-0)

RNSG 1301 Pharmacology
This course is an introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of drug classifications. Content includes the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework. Prerequisites: Department Chair Approval. (3:3-0)

RNSG 1341 Common Concepts of Adult Health
This course covers the basic integration of the role of the professional nurse as a provider of patient-centered care, patient safety advocate, member of health care team and member of the profession. It includes the study of common concepts of caring for adult patients and families with medical-surgical health care needs related to body systems. Emphasis on knowledge, judgment, skills and professional values within a legal/ethical framework. (3:3-0)

RNSG 1343 Complex Concepts of Adult Health
This course provides integration of previous knowledge and skills related to common adult health needs into the continued development of the professional nurse as a provider of patient-centered care, patient safety advocate, member of health care team and member of the profession in the care of adult patients and families with complex medical-surgical health care needs associated with body systems. Emphasis on complex knowledge, judgment, skills and professional values within a legal/ethical framework. (3:3-0)

RNSG 1413 Foundations for Nursing Practice
This is an introduction to the role of the professional nurse as a provider of patient-centered care, patient safety advocate, member of health care team and member of the profession. Content includes fundamental concepts of nursing practice, history of professional nursing, a systematic framework for decision making and critical thinking. The mechanisms of disease and the needs and problems that can arise are discussed and how the nursing process helps manage the patient through these issues. Emphasis on knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: Department chair approval. (4:2-6)

RNSG 1417 Concepts of Professional Nursing Practice I for Articulating Students
This course provides the articulating student the opportunity to examine the role of the professional nurse; application of a systematic problem solving process and critical thinking skills which includes a focus on the adult population; and competency in knowledge, judgment, skill, and professional values within a legal/ethical framework. This course lends itself to either a blocked or integrated approach. Prerequisite: Admission to ADN Mobility program. Co-requisite: RNSG 1260 and 1209 (4:4-0)

RNSG 2121 Professional Nursing Leadership and Management
This course features exploration of leadership and management principles applicable to the roles of the professional nurse. Includes application of knowledge, judgment, skills, and professional values within a legal/ethical framework. (1:1-0)
**RNSG 2130 Professional Nursing Review and Licensure Preparation**
This course is a review of concepts required for licensure examination and entry into the practice of professional nursing. Includes review of application process of National Council Licensure Examination for Registered Nurses (NCLEX-RN) test plan, assessment of knowledge deficits, and remediation. (1:1-0)

**RNSG 2163 Clinical: Concepts of Nursing Practice Illb for Articulating Students**
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RNSG 2213 and 2162. Co-requisite: RNSG 2271 (1:0-6)

**RNSG 2201 Care of Children and Families**
This course is a study of concepts related to the provision of nursing care for children and their families, emphasizing judgment and professional values within a legal/ethical framework. Prerequisites: PSYC 2314 (2:2-0)

**RNSG 2207 Adaptation to the Role of Nursing**
This is an introduction to selected concepts related to the role of the professional nurse as provider of care, coordinator of care and member of profession. Includes review of trends and issues impacting nursing and health care today and in the future. Content includes knowledge, judgment, skills and professional values within a legal/ethical framework. Introduction to selected medical-surgical topics is included. Prerequisite: Department chair approval. (2:2-1)

**RNSG 2208 Maternal Newborn Nursing and Women's Health**
This course covers concepts related to nursing care for childbearing families and women's health issues. Content includes knowledge, judgment, skill and professional values within a legal/ethical framework. (2:1-2)

**RNSG 2213 Mental Health Nursing**
This course covers principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of patients and their families. This course enables the student to expand their understanding of human-environmental interactions and evolving mental health patterns within diverse cultures to promote optimal health. The student is provided with an opportunity to understand the organization of mental health patterns as they appear in normative growth and developmental perspectives as well as the alterations in the patterns with the resulting nursing implications. The progression will be from common to more complex mental health patterns as they relate to nursing practice. (2:2-0)

**RNSG 2231 Advanced Concepts of Adult Nursing**
This course covers the application of advanced concepts and skills for the development of professional nurse’s roles with adult patients and families involving multiple body systems. Emphasis on advanced knowledge, judgment, skills, and professional values within a legal/ethical framework. (2:2-1)

**RNSG 2260 Clinical Registered Nursing**
This course is 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. This intermediate health professional work-based instruction helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the work flow in the care of adult clients/families with complex health needs involving multiple body systems in intermediate and critical care settings. Practical experience is simultaneously related to theory. Clinical education is an unpaid learning experience. (2:0-8)

**RNSG 2261 Clinical Mental Health Nursing**
This course covers the application of advanced concepts and skills for the development of professional nurse’s roles with adult patients and families involving multiple body systems. Emphasis on advanced knowledge, judgment, skills, and professional values within a legal/ethical framework. (2:2-1)

**RNSG 2262 Clinical Nursing Care of Children and Families**
This course is 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. This intermediate health professional work-based instruction helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the work flow in the provision of nursing care for the child and family. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by a clinical professional, generally in a clinical setting. Practical experience is simultaneously related to theory. Clinical education is an unpaid learning experience. (2:0-8)
RNSG 2263 Clinical - Registered Nursing
This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Practical experience is simultaneously related to theory. Direct supervision is provided by the clinical professional. (2-0-8)

RNSG 2271 Concepts of Nursing Practice IIIb for Articulating Students
This course provides the articulating student the opportunity to synthesize the roles of the professional nurse; application of systematic problem solving and critical thinking skills; focus on the care of patients throughout the lifespan with continued emphasis on leadership and management skills in the provision of care to small groups of adult clients and their families in multiple settings; and competency in knowledge, skills, and professional values within a legal/ethical framework. The focus of this course will be the care of the critically ill patient and nursing management. Prerequisite: RNSG 2213 and 2162. Co-requisite: RNSG 2163 (2:2-0)

RNSG 2332 Enhanced Concepts of Adult Health
This course covers enhanced concepts and skills for developing professional competencies in complicated nursing care situations involving adult patients/families with multiple body system problems. Emphasizes critical thinking, clinical reasoning and determining legal/ethical values for optimization of patient care in intermediate and acute care settings. (3:3-0)

RSPT 1166 Respiratory Care Practicum I
This course covers practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. The course provides the student with the opportunity to learn about the hospital environment and the respiratory care department. It includes basic cardiopulmonary resuscitation, basic patient care skills, patient assessment, gas and aerosol therapy, hyperinflation therapy, chest physiotherapy, airway care, and arterial blood gas sampling and analysis. Prerequisites: RSPT 1325, 1340, 1429; Co-requisite: RSPT 1431 (2:0-10)

RSPT 1167 Respiratory Care Practicum II
This course offers practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. This course is designed to provide increased exposure to management of the critically ill patient. Prerequisite: RSPT 1166; Co-requisite: RSPT 2414 (2:0-14)

RSPT 1265 Respiratory Care Practicum III
This course offers practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. The course provides the student with the opportunity to learn about the hospital environment and the respiratory care department. It includes basic cardiopulmonary resuscitation, basic patient care skills, patient assessment, gas and aerosol therapy, hyperinflation therapy, chest physiotherapy, airway care, and arterial blood gas sampling and analysis. Prerequisites: HPRS 1106, RSPT 1325, 1340, 1429; Co-requisite: RSPT 1431 (2:0-16)

RSPT 1266 Respiratory Care Practicum II
This course covers practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. This course is designed to provide increased exposure to management of the critically ill patient. Prerequisite: RSPT 1166; Co-requisite: RSPT 2414 (2:0-14)

RSPT 1267 Respiratory Care Practicum III
This course offers practical general workplace training supported by an individualized learning plan developed by the employer, College, and student. The course provides the student with the opportunity to care for the critically ill pediatric and neonatal patient. Prerequisites: RSPT 1325, 1340, 1429; Co-requisite: RSPT 1460. (4:3-3)

RSPT 1325 Respiratory Care Sciences
This course is a study of physics, mathematics, and chemistry as related to respiratory care. Prerequisite: MATH 1314 OR TECM 1301 or a higher level math (3:3-0)

RSPT 1340 Advanced Cardiopulmonary Anatomy and Physiology
This course provides an advanced presentation of anatomy and physiology of the cardiovascular and pulmonary system. Prerequisite: BIOL 2404 or BIOL 2301/2101 and 2302/2102 (3:3-1)

RSPT 1429 Respiratory Care Fundamentals I
This course is an introduction to respiratory care fundamentals. (4:3-3)

RSPT 1431 Respiratory Care Fundamentals II
This course provides continued development of knowledge and skills for respiratory care. Prerequisites: RSPT 1325, 1340, and 1429; Co-requisite: RSPT 1460. (4:3-3)

RSPT 1460 Respiratory Care Clinical I
This course offers a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: RSPT 1325, 1340, 1429; Co-requisite: RSPT 1431 (4:0-16)

RSPT 2130 Respiratory Care Examination Preparation
This course is a comprehensive review to optimize respiratory care credentialing exam success. Prerequisites: RSPT 2355 (1:1-1)
**RSPT 2131 Simulations in Respiratory Care**  
This course is theory of clinical simulation examinations. Includes construction types, scoring, and mechanics of taking the computerized simulation examination. (1:1-1)

**RSPT 2167 Respiratory Care Practicum II**  
This course offers practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. This course is designed to provide increased exposure to management of the critically ill patient. Prerequisite: RSPT 1267; Co-requisite: RSPT 2314 (1:0-10)

**RSPT 2258 Respiratory Care Patient Assessment**  
This course covers integration of patient examination techniques, including patient history and physical exam, lab studies, X-ray, pulmonary function, arterial blood gases, and invasive and non-invasive hemodynamics. Co-requisite: RSPT 2267 (2:2-1)

**RSPT 2266 Respiratory Care Practicum III**  
This course offers practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. This course provides the student with an opportunity to care for the critically ill pediatric and neonatal patient. Prerequisite: RSPT 2167; Co-requisite: RSPT 2353 (2:0-16)

**RSPT 2267 Respiratory Care Practicum IV**  
This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. The course provides the student with the opportunity to observe and study diagnostic testing of the pulmonary system. Through specialty rotations in the emergency room, emergency triage and care of the traumatically injured patient are demonstrated to the student. The student is presented the opportunity to refine skills in assessment and procedures via rotations through the adult intensive care units. Prerequisite: RSPT 2266; Co-requisite: RSPT 2258 (2:0-16)

**RSPT 2310 Cardiopulmonary Disease**  
This course covers etiology, pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases. Prerequisite: RSPT 1340 (3:3-0)

**RSPT 2314 Mechanical Ventilation**  
This course is a study of mechanical ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. Prerequisites: RSPT 1429, Co-requisite: RSPT 1460 (3:3-1)

**RSPT 2317 Respiratory Care Pharmacology**  
This course is a study of drugs that affect cardiopulmonary systems, with an emphasis on classification, route of administration, dosages/calculations, and physiologic interactions. (3:3-0)

**RSPT 2325 Cardiopulmonary Diagnostics**  
This course is a study of physical, radiological, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessments. Co-requisite: RSPT 2362 (3:3-1)

**RSPT 2353 Neonatal/Pediatric Cardiopulmonary Care**  
This course is a study of neonatal and pediatric cardiopulmonary care. Prerequisite RSPT 2471; Co-requisite RSPT 2361 (3:3-1)

**RSPT 2355 Critical Care Monitoring**  
This course covers advanced monitoring techniques used to access a patient in the critical care setting. Prerequisite: RSPT 2310 (3:3-1)

**RSPT 2360 Respiratory Care Clinical II**  
This course offers a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: RSPT 1460, RSPT 2314; Co-requisite: RSPT 2471 (3:0-15)

**RSPT 2361 Respiratory Care Clinical III**  
This course offers a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: RSPT 2360, RSPT 2471; Co-requisite: RSPT 2353 (3:0-18)

**RSPT 2362 Respiratory Care Clinical IV**  
This course offers a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: RSPT 2361, RSPT 2355; Co-requisite: RSPT 2325 (3:0-18)

**RSPT 2453 Neonatal/Pediatric Cardiopulmonary Care**  
This course is a study of neonatal and pediatric cardiopulmonary care. Prerequisite RSPT 2355 (4:4-1)

**RSPT 2471 Mechanical Ventilation II**  
This course is a continued study of mechanical ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. Prerequisites: RSPT 2314 (4:4-1)

**RSTO 1301 Beverage Management**  
This is a study of the beverage service of the hospitality industry including spirits, wines, beers, and non-alcoholic beverages. Topics include purchasing, resource control, legislation, marketing, physical plant requirements, staffing, serving, and the selection of wines to enhance foods. (3:3-0)
RSTO 1304 Dining Room Service
This will introduce students to the principles, concepts, and systems of professional table service. Topics include dining room organization, scheduling, and management of food service personnel. (3:3-0)

RSTO 1313 Hospitality Supervision
This course includes fundamentals of recruiting, selection, and training of food service and hospitality personnel. Topics include job descriptions, schedules, work improvement, motivation, and applicable personnel laws and regulations, with an emphasis on leadership development. (3:3-0)

RSTO 1325 Purchasing for Hospitality Operations
This is a study of purchasing and inventory management of foods and other supplies to include development of purchase specifications, determination of order quantities, formal and informal price comparison, proper receiving procedures, storage management, and issue procedures, with an emphasis on product cost analysis, yields, pricing formulas, controls, and record keeping at each stage of the purchasing cycle. (3:3-0)

RSTO 2301 Principles of Food and Beverage Control
This is a study of financial principles and controls of food service operation including review of operation policies and procedures. Topics include financial budgeting and cost analysis emphasizing food and beverage labor costs, operational analysis, and international and regulatory reporting procedures. (3:3-0)

RSTO 2307 Catering
This course covers principles, techniques, and applications for both on-premises, off-premises, and group marketing of catering operations including food preparation, holding, and transporting techniques. (3:3-0)

RSTO 2365 Practicum (or Field Experience) - Restaurant, Culinary, and Catering Management/Manager
This course offers practical general workplace training supported by an individualized learning plan developed by the employer, the College, and student. The plan relates workplace training and experiences to the student’s general and technical course of study. The guided external experiences may be for paid or unpaid. The course may be repeated if topics and learning outcomes vary. (3:0-21)

RSTO 2405 Management of Food Production and Service
This is a study of quantity cookery and management problems pertaining to commercial and institutional food service, merchandising and variety in menu planning, and customer food preferences. It includes laboratory experiences in quantity food preparation and service. (4:3-3)

RSTO 2431 Food Service Management
This course covers mastery of actual management experiences in supervision, training, planning, and control of a variety of food service operation formats to include cafeteria, table service, meetings, banquets, and catered events. Students may not receive credit for both RSTO 2431 and RSTO 2405. Co-requisite: CHEF 1205 (4:2-8)

SCIT 1307 Applied Human Anatomy and Physiology I
This course is an applied systematic study of the structure and function of the human body. Includes anatomical terminology, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, and endocrine. Emphasis on homeostasis. (3:3-0)

SCIT 1318 Applied Physics
This course is an introduction to physics for industrial applications including vectors, motion, mechanics, simple machines, matter, heat, and thermodynamics. Prerequisites: Reading level 7, Writing level 7, Math level 6 (3:2-2)

SCIT 1395 Special Topics in Analytical Chemistry
The course 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. Prerequisite: MLAB 1101 (3:3-0).

SCIT 1414 Applied General Chemistry I
This course offers applications of general chemistry emphasizing industry-related laboratory skills and competencies including laboratory safety and report writing. It addresses supporting chemical theories including atomic and molecular structure, nomenclature, chemical reactivity, gas laws, acids and bases, and solutions, and an overview of organic chemistry. Prerequisites: MATH 1333 or MATH 1314 or higher, Reading level 7, Writing level 7, Math level 6 (4:3-3)

SCWK 2301 Assessment and Case Management
This is a study of the exploration of procedures to identify and evaluate an individual’s and/or family’s strengths, weaknesses, problems, and needs in order to develop an effective plan of action. Topics include oral and written communications essential for screening, assessment, and case management to determine the need for prevention, intervention, and/or referral. Prerequisites: Reading level 6, Writing level 6 (3:3-0)
SGNL 1401 Beginning American Sign Language I
This course offers an introduction to American Sign Language (ASL) covering finger spelling, vocabulary, and basic sentence structure in preparing individuals to interpret oral speech for the hearing impaired. The course also offers instruction in understanding the deaf culture. Students will spend three hours a week in lab activities. (4:3-2)

SGNL 1402 Beginning American Sign Language II
This course continues instruction in American Sign Language (ASL) covering finger spelling, vocabulary, and basic sentence structure in preparing individuals to interpret oral speech for the hearing impaired. The course also offers instruction in understanding the deaf culture. Students will spend three hours a week in lab activities. (4:3-2)

SOCI 1301 Introduction to Sociology
This course covers the scientific study of human society, including ways in which groups, social institutions, and individuals affect each other. Causes of social stability and social change are explored through the application of various theoretical perspectives, key concepts, and related research methods of sociology. Analysis of social issues in their institutional context may include topics such as social stratification, gender, race/ethnicity, and deviance. Prerequisite: Reading level 6 (3:3-0)

SOCI 1306 Social Problems
This course is about the application of sociological principles and theoretical perspectives to major social problems in contemporary society such as inequality, crime and violence, substance abuse, environmental issues, deviance, or family problems. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

SOCI 2301 Marriage and the Family
This course is a study of sociological and theoretical analysis of the structures and functions of the family, the varied cultural patterns of the American family, and the relationships that exist among the individuals within the family, as well as the relationships that exist between the family and other institutions in society. Prerequisites: Reading level 7 and Writing level 7 (3:3-0)

SOCI 2306 Human Sexuality
This course will provide an overview of the broad field of human sexuality. Topics will be covered from various perspectives - biological, sociological, anthropological, etc., but will focus primarily on the psychological perspective. The goal is for each student to learn factual, scientifically-based information that will provoke thought and contribute to his/her own decision-making on sexual issues outside of the classroom. Prerequisites: SOCI 1301 or PSYC 2301, Reading level 7, and Writing level 7 (3:3-0)

SOCI 2319 Minority Studies I
This course studies minority-majority group relations, addressing their historical, cultural, social, economic, and institutional development in the United States. Both sociological and social psychological levels of analysis will be employed to discuss issues including experiences of minority groups within the context of their cultural heritage and tradition, as well as that of the dominant culture. Core concepts to be examined include (but are not limited to) social inequality, dominance/subordination, prejudice, and discrimination. Particular minority groups discussed may include those based on poverty, race/ethnicity, gender, sexual orientation, age, disability, or religion. Prerequisites: Reading level 7, Writing level 7 (3:3-0)

SPAN 1411 Beginning Spanish I
This course is basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the beginner level. Prerequisite: Reading level 6 (4:3-2)

SPAN 1412 Beginning Spanish II
This course is a continued development of basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the high beginner to low intermediate level. Prerequisite: SPAN 1411 (4:3-2)

SPAN 1415 Essentials of Spanish for Health Vocations
This course requires intensive practice in basic grammar, pronunciation, reading and simple conversation; emphasis is placed on medical terminology. This course cannot be substitued for SPAN 1411 (4:3-2)
SPAN 2311 Intermediate Spanish I
This course is designed to give the student who has completed Spanish 1411 and 1412 increased fluency and confidence in the use of the Spanish language. Although no lab is scheduled, students will have access to tapes and other lab materials and will be encouraged to use these supplemental learning tools. Prerequisites: SPAN 1411-1412 (3:3-0)

SPAN 2312 Intermediate Spanish II
This course is a continuation of Spanish 2311. Although no lab is scheduled, students will have access to tapes and other lab materials and will be encouraged to use these supplemental learning tools. Prerequisite: SPAN 2311 (3:3-0)

SPCH 1145 Forensic Activities
This course includes intensive preparation for intercollegiate competition in debate and/or speech events. The course may be taken a maximum of four times for credit. Prerequisite: Reading level 7 (1:0-3)

SPCH 1311 Introduction to Speech Communication
This course introduces basic human communication principles and theories embedded in a variety of contexts including interpersonal, small group, and public speaking. Prerequisite: Reading level 6 (3:3-0)

SPCH 1315 Public Speaking
This course is an application of communication theory and practice to the public speaking context, with emphasis on audience analysis, speaker delivery, ethics of communication, cultural diversity, and speech organizational techniques to develop students' speaking abilities, as well as ability to effectively evaluate oral presentations. Prerequisite: Reading level 6 (3:3-0)

SPCH 1318 Interpersonal Communications
This course is the application of communication theory to interpersonal relationship development, maintenance, and termination in relationship contexts including friendships, romantic partners, families, and relationships with co-workers and supervisors. Prerequisite: Reading level 6 (3:3-0)

SPCH 1321 Business and Professional Speech
This course is the study and application of communication within the business and professional context. Special emphasis will be given to communication competencies in presentations, dyads, teams, and technologically mediated formats. Prerequisite: Reading level 6 (3:3-0)

SPCH 1342 Voice and Diction
This course covers instruction in the development of effective habits in the use of the speaking voice. It covers the study of English phonetics, phrasing, intonation and voice production. Training is given to enable the student to listen intelligently to the sound of his/her own voice. Students cannot receive credit for both SPCH 1342 and DRAM 2336. Prerequisite: Reading level 6 (3:3-0)

SPCH 2333 Discussion and Small Group Communication
This course includes discussion and small group theories and techniques as they relate to group processes and interaction. Prerequisite: Reading level 7 (3:3-0)

SPCH 2335 Argumentation and Debate
This course includes instruction in the principles of argumentation and debate; analysis and discussion of current public questions in briefing, strategy and refutation. Students will not receive credit for both SPCH 2335 and SPCH 2336. Prerequisite: Reading level 7 (3:3-0)

SPCH 2336 Forensics
This is open to students in interpretation and forensics as related to competition and public performance. Students will not receive credit for both SPCH 2335 and SPCH 2336. Prerequisite: Reading level 7 (3:3-0)

SPCH 2341 Oral Interpretation
This course covers an introduction to oral interpretation of literature, including preparation and reading of printed material, and practical experience in storytelling and choral speaking. Instruction in techniques and analysis of literature will be read aloud. It covers the techniques of oral reading. Students cannot receive credit for both SPCH 2341 and DRAM 2341. Prerequisite: Reading level 6 (3:3-0)

SRGT 1260 Clinical I Surgical
This is a method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation and placement is the responsibility of the College faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Introductory level. Co-requisites: SRGT 1505 and SRGT 1509 (2:0-8)
SRGT 1261 Clinical III Surgical
This is 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. The course may be repeated if topics and learning outcomes vary. Advanced level. Prerequisites: SRGT 1260, 1360, 1471, 1505, 1509, 1541; HPRS 2200, 2301. Prerequisites or co-requisites: SRGT 1542, 2130 (2:0-12)

SRGT 1262 Clinical - Surgical Technology/Technologist
This course is 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. (2:0-8)

SRGT 1360 Clinical II Surgical
This is 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. The course may be repeated if topics and learning outcomes vary. Intermediate level. Co-requisite: SRGT 1541 (3:0-12)

SRGT 1505 Introduction to Surgical Technology
This is an orientation to surgical technology theory, surgical pharmacology and anesthesia, technological sciences, and patient care concepts. (5:4-4)

SRGT 1509 Fundamentals of Perioperative Concepts and Techniques
This course is an in-depth coverage of perioperative concepts such as aseptic/sterile principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field. Co-requisite: SRGT 1260 (5:4-3)

SRGT 1541 Surgical Procedures I
This is an introduction to surgical procedures and related pathologies with emphasis on surgical procedures related to general, obstetrics/gynecology, genitourinary, otorhinolaryngology and orthopedic surgical specialties incorporating instruments, equipment, and supplies. Pre-requisites: SRGT 1505, 1509, and 1260. Co-requisite SRGT 1360. (5:5-0)

SRGT 1542 Surgical Procedures II
This is an introduction to surgical procedures and related pathologies with emphasis on surgical procedures related to thoracic, peripheral vascular, plastic/reconstructive, ophthalmology, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies. Prerequisites: HPRS 2200, 2301; SRGT 1505, 1509, 1260, 1360, and 1541. Co-requisite: SRGT 2460. (5:5-0)

SRGT 2130 Professional Readiness
This course is a transition into the professional role of the surgical technologist. Includes professional readiness for employment, attaining certification, and maintaining certification status. Prerequisites: HPRS 2200, 2301; SRGT 1505, 1509, 1260, 1360, and 1541. (1:1-0)

SRGT 2460 Clinical III Surgical
This course is 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. Advanced Level. Co-requisite: SRGT 1542 (4:0-20)

TECA 1303 Families, School, and Community
This is a study of the child, family, community, and schools. It includes parent education and involvement, family and community lifestyles, child abuse, and current family life issues. The course content is aligned with state Board for Educator Certification Pedagogy and Professional Responsibilities standards. The course requires students to participate in a minimum of 16 hours field experience with children from infancy through age 12 in a variety of settings with varied and diverse populations. Credit will not be given for both TECA 1303 and CDEC 1303. (3:3-1)

TECA 1311 Educating Young Children
This is 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. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the national Assessment of Educational Progress position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations; and the course includes a minimum of 16 hours of field experiences. (3:3-1)
COURSE DESCRIPTIONS

TECA 1318 Wellness of the Young Child
This is a study of the factors that impact the well-being of the young child including healthy behavior, food, nutrition, fitness, and safety practices. Focuses on local and national standards and legal implications of relevant policies and regulations. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Assessment of Educational Progress position statement related to developmentally appropriate practices for children from birth to age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations. Course includes a minimum of 16 hours of field experiences. (3:3-1)

TECA 1354 Child Growth and Development
This course is a study of the physical, emotional, social, and cognitive factors impacting growth and development of children through adolescence. Credit will not be given for both TECA 1354 and CDEC 1354. (3:3-0)

TECM 1301 Industrial Mathematics
This course covers Math skills applicable to industrial occupations. Includes fraction and decimal manipulation, measurement, percentage, and problem solving techniques for equations and ratio/proportion applications. Prerequisites: Reading level 6, Writing level 6, Math level 6 (3:3-0)

VNSG 1116 Nutrition
This course is the introduction to nutrients and the role of diet therapy in growth and development and the maintenance of health. Prerequisites: Reading level 7, Writing level 7, Math level 9 and/or department chair/program director approval (1:0-2)

VNSG 1119 Leadership and Professional Development
This is a study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of second semester VNSG courses. Course must be taken in third semester. (1:0-2)

VNSG 1162 Clinical III - Practical Nurse
This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory (nursing theory), skills, and concepts with direct supervision by the clinical professional in the clinical setting. The clinical practice offers the student continued experience in the nursing care of adult medical surgical clients in a variety of clinical settings with a focus on gerontological nursing. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of the first semester VNSG courses. Co-requisite: VNSG 1226 (1:0-6)

VNSG 1205 NCLEX-PN Review
This course provides a review of nursing knowledge and skills, study skills, stress management techniques, and test-taking strategies to prepare the graduate vocational nurse (GVN) to take the National Licensure Examination-Practical Nurse (NCLEX-PN). Prerequisites: Reading Level 7, Writing Level 7, Math Level 9 and completion of the first semester VNSG courses. (2:1-2)

VNSG 1226 Gerontology
This course is an overview of the physical, psychosocial, and cultural aspects of the aging process which addresses disease processes of the aging patient. The course also explores the perceptions toward care of the older adult. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of the first semester of VNSG courses. Co-requisite: Concurrent enrollment in VNSG 1162. (2:2-0)

VNSG 1230 Maternal-Neonatal Nursing
This course focuses on the study of the biological, psychological, and sociological concepts applicable to basic needs of the family including childbirth and neonatal care. The course utilizes the nursing process in the assessment and management of the childbearing family. Topics include physiological changes related to pregnancy, fetal development, and nursing care of the family during labor and delivery and the puerperium. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of the second semester VNSG courses. Co-requisites: Concurrent enrollment in VNSG 1234 and 2161 required. (2:1-2)

VNSG 1234 Pediatrics
This course is the study of the care of the pediatric patient and family, using the nursing process, during health and disease with an emphasis on growth and developmental needs. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of the second semester VNSG courses. Co-requisites: Concurrent enrollment in VNSG 1230 and 2161 required. (2:1-2)

VNSG 1260 Clinical I
This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory (nursing theory), skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: Reading level 7, Writing level 7, Math level 9 and successful completion of VNSG 1423. Co-requisites: VNSG 2431 and 1327 (2:0-8)
VNSG 1261 Clinical II - Licensed Practical/Vocational Nursing Training
This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of the first semester VNSG courses. Co-requisites: Concurrent enrollment in VNSG 1331 and 1429 required. (2:0-10)

VNSG 1301 Mental Health and Mental Illness
This course includes factors influencing mental health and mental illness including personality development, human needs and common mental mechanisms. The course also includes common mental disorders and related therapy. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of the first semester of VNSG courses. (3.3-0)

VNSG 1320 Anatomy and Physiology for Allied Health
This course is the study of the structure (anatomy) and function (physiology) of the human body, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory and circulatory systems. Prerequisites: Reading level 7, Writing level 7, Math level 9 and department chair/program director approval (3:2-2)

VNSG 1327 Essentials of Medication Administration
This course covers general principles of medication administration including determination of dosage, preparation, safe administration, and documentation of multiple forms of drugs. Instruction includes various systems of measurement. Prerequisites: Reading level 7, Writing level 7, Math level 9 and admission into the VNSG program. Co-requisite: VNSG 1260, 1423 and 2431 (3:2-2)

VNSG 1331 Pharmacology
This course discusses the fundamentals of medications and their diagnostic, therapeutic, and curative effects. The course also includes nursing interventions utilizing the nursing process. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of the first semester VNSG courses. Co-requisites: Concurrent enrollment in VNSG 1429 and 1261 (3:3-0)

VNSG 1423 Basic Nursing Skills
This course provides instruction for the mastery of basic nursing skills and competencies for a variety of health care settings using the nursing process as the foundation for all nursing interventions. Prerequisites: Reading level 7, Writing level 7, Math level 9 and admission into the VNSG program. Co-requisites: VNSG 1327 (4:2-6)

VNSG 1429 Medical - Surgical Nursing I
This course is the application of nursing process to the care of adult patients experiencing medical-surgical conditions in the health-illness continuum. A variety of health care settings are utilized. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of first semester VNSG courses. Co-requisites: Concurrent enrollment in VNSG 1331 and 1261 required. (4:3-2)

VNSG 1432 Medical - Surgical Nursing II
This course is the continuation of Medical-Surgical Nursing I with application of the nursing process to the care of the adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of the second semester VNSG courses. Co-requisites: Concurrent enrollment in VNSG 2160 required. (4:3-2)

VNSG 2160 Clinical IV - Licensed Practical/Vocational Nursing Training
This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory (nursing theory), skills, and concepts with direct supervision by a clinical professional in the clinical setting. The clinical practice offers the student continued experience in the nursing care of adult medical-surgical clients in a variety of clinical settings with a focus on medical-surgical nursing. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of the second semester VNSG courses. Co-requisite: Concurrent enrollment in VNSG 1432 (1:0-6)

VNSG 2161 Clinical V - Licensed Practical/Vocational Nurse Training
This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory (nursing theory), skills, and concepts with direct supervision by a clinical professional in the clinical setting. The clinical practice offers the student experience in the nursing care of the maternal, newborn and pediatric patients. Prerequisites: Reading level 7, Writing level 7, Math level 9 and completion of the second semester VNSG courses. Co-requisites: Concurrent enrollment in VNSG 1230 and 1234 (1:0-6)

VNSG 2431 Advanced Nursing Skills
This course provides instruction for the application of advanced level nursing skills and competencies in a variety of health care settings utilizing the nursing process as a problem-solving tool. Prerequisites: Reading level 7, Writing level 7, Math level 9 and VNSG 1423. Co-requisites: VNSG 1327 and 1260 (4:2-6)
WLDG 1305 Art Metals
This course covers the fundamentals of conceptualizing and producing utilitarian items in ferrous and non-ferrous metals. Includes skill development through the techniques of sinking, raising, repousse, and piercing to create objects from sheet and stock materials. Also covers welding, brazing, soldering, tinning, polishing, and tool making. (3:2-2)

WLDG 1308 Metal Sculpture
This course covers techniques and methods of oxy-acetylene and electric welding and cutting to produce metal sculptures. Includes skill development in material forming, welding, brazing, and finishing techniques. Also covers work ethics, artistic styles, and professionalism. (3:2-2)

WLDG 1528 Introduction to Shielded Metal Arc Welding (SMAW)
This is an introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction is provided on SMAW fillet welds in various positions. (5:3-5)

WLDG 1530 Introduction to Gas Metal Arc Welding (GMAW)
This course covers principles of gas metal arc welding, setup and use of Gas Metal Arc Welding (GMAW) equipment, and safe use of tools and equipment. Instruction provided in various joint designs. (5:3-5)

WLDG 1534 Introduction to Gas Tungsten Arc Welding (GTAW)
This is a study of the principles of gas tungsten welding, including setup, GTAW equipment. Instruction is provided in various positions and joint designs. (5:3-5)

WLDG 2380 Cooperative Education - Welding Technology/Welder
This course covers 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. (3:1-21)

WLDG 2506 Intermediate Pipe Welding
This is a comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) process. Welding will be done using various positions. Topics covered include electrode selection, equipment setup, and safe shop practices. (5:3-5)

WLDG 2513 Intermediate Welding Using Multiple Processes
This course offers instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW), or any other approved welding process. (5:3-5)

WLDG 2543 Advanced Shielded Metal Arc Welding (SMAW)
This course covers advanced topics based on accepted welding codes. Training is provided with various electrodes in shielded metal arc welding with open V-groove joints in all positions. (5:3-5)

WLDG 2551 Advanced Gas Tungsten Arc Welding (GTAW)
This course covers advanced topics in GTAW welding, including welding in various positions and directions. (5:3-5)

WLDG 2553 Advanced Pipe Welding
This course covers advanced topics involving welding of pipe using the shielded metal arc welding process. Topics include electrode selection, equipment setup, and safe shop practices, with an emphasis on weld positions 5G and 6G using various electrodes. (5:3-5)

WLDG 2580 Cooperative Education Welding
This course covers 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. It includes a lecture component. Prerequisite: None (5:1-28)
Pipefitting

PFPB 1001 Pipefitting Certificate: Introduction to Pipefitting: Pipefitting 1B
This course offers instruction in pipefitting hand and power tools, threaded pipe, ladders and scaffolds, motorized equipment, excavation, underground pipe and installation, drawings and detail sheets, piping systems, and trade math. 64 contact hours

PFPB 1008 Basic Pipefitting Skills
This course is the study of the Mathematical operations necessary to calculate laying lengths of pipe fittings for fabrication. Identification and use of hand tools and power tools. Identification of pipe, pipe fittings, flanges, and fasteners used in the trade. 64 contact hours

PFPB 1043 Pipefitting Fabrication and Blueprint Reading: Pipefitting II
This course offers instruction in socket and butt weld pipe fabrication, rigging, pipe hangers and supports, advanced blueprint reading, standards and specifications, and advanced trade math. 64 contact hours

PFPB 2032 Advanced Pipefitting Standards, Specifications, Installation: Pipefitting III
This course promotes skill development related to these areas: motorized equipment, above-ground pipe installation valves, field routing and vessel trim, spring can supports, testing piping systems and equipment, basic plumbing, planning work activities, and non-destructive testing (NDT). 64 contact hours

PFPB 2033 Pipefitting, Advanced Fabrication and Installation: Pipefitting IV
This course promotes skill development in these areas: advanced pipe fabrication, aligning pipe to rotating equipment, steam traps, inline specialties, special piping, hot taps, and maintaining valves. 64 contact hours

Plumbing

PFPB 1001 Pipefitting Certificate: Introduction to Pipefitting: Pipefitting 1B
This course offers instruction in pipefitting hand and power tools, threaded pipe, ladders and scaffolds, motorized equipment, excavation, underground pipe and installation, drawings and detail sheets, piping systems, and trade math. 64 contact hours

PFPB 1003 Basic Plumbing Skills
In this course students develop skills and knowledge required to install drains, sanitary sewers, water and natural gas supply lines, and fixtures commonly used in residential and light commercial buildings and facilities. 72 contact hours

PFPB 1071 Plumbing Standards for Water Supplies
This course focuses on the installation of water service from the installation of valves and faucets to connecting to water mains. It covers both residential and commercial settings. 72 contact hours

PFPB 2031 Advanced Technologies and Specialized Applications for Piping Trades (Plumbing IVB)
This course offers instruction in new plumbing techniques and materials in the pipe trades. Topics include specialized piping/fitting procedures for specific industrial applications and upgrades to techniques and practices designed to deal with federal, state, and local environmental and safety regulations. 72 contact hours

PFPB 2032 Pipefitting Standards, Specifications, Installation
This course promotes skill development related to these areas: motorized equipment, above-ground pipe installation valves, field routing and vessel trim, spring can supports, testing piping systems and equipment, basic plumbing, planning work activities, and non-destructive testing (NDT). 72 contact hours

PFPB 2033 Pipefitting, Advanced Fabrication and Installation (Plumbing IIIA)
This course promotes skill development related to these areas: advanced pipe fabrication, aligning pipe to rotating equipment, steam traps, in-line specialties, special piping, hot taps, and maintaining valves. 72 contact hours

PFPB 2071 Installation and Repair of Potable Water Systems
This course focuses on the plumbing of potable water systems according to local plumbing codes. Methods of filtering and softening water systems are also discussed. 72 contact hours
Sheet Metal

MCHN 1001 Sheet Metal I
This is an introduction to the materials, tools, and techniques used in the sheet metal industry. It reviews trade math problems involving measurement of lines, area, volume, weight, and geometric figures. The course focuses on types and uses of hand, layout, and cutting tools along with bending and forming machines. Students practice using material of various type and properties as they apply the principles of layout and metal forming. 72 contact hours

MCHN 1049 Sheet Metal II
In this introduction to various types of pipe and fittings, emphasis is on principles and types of fittings for radial line development and on factors that influence bend allowances and calculations necessary for determining proper bend allowances. The course also focuses on principles of soldering roof flashings, gutters, down spouts, and sheet metal duct fabrications. 72 contact hours

MCHN 1053 Sheet Metal III
This is an introduction to the principles of airflow as applied to HVAC air distribution systems, components of HVAC, and the basic refrigeration cycle. The course introduces students to welding, brazing, and field measurements along with extensive triangulation layout, fabrication and fiberglass ductwork. 72 contact hours

MCHN 1071 Sheet Metal IIB
In this continuation of the study of various types of pipe and fittings, emphasis is on using blueprints and shop drawings to determine bend allowances and on calculations necessary for determining proper bend allowances in soldering roof flashings, gutters, down spouts, and sheet metal duct fabrications. 72 contact hours

MCHN 1072 Sheet Metal IIB
This is a continuation to the study of triangulation layout and fabrication and fiberglass ductwork. It focuses on application of field measurements for layout and installation of duct sections and offsets. 72 contact hours

MCHN 2030 Sheet Metal IV
This course is a comprehensive review of developmental and fabrication techniques. It also provides an introduction to the concepts of shop production and organization, and to elements of air balance and specialty applications related to louvers, dampers, access doors, ventilators, and fume and exhaust systems. 72 contact hours

MCHN 2071 Sheet Metal IVB
This course offers extensive practice in the application of parallel line development, radial line development, and triangulation methods of fabrication used in the layout and fabrication of sheet metal air systems. 72 contact hours

Truck Driving

CVOP 1013 Commercial Vehicle Operator I
CVOP 1013 is the first of two 126-clock hour courses in Commercial Truck Driving. This course is designed to familiarize students with the basic operations of a tractor-trailer combination. It consists of thirty (30) hours of classroom lecture and demonstration, and ninety (90) hours of hands-on tractor-trailer operation. Co-requisite: CVOP 1040

CVOP 1040 Commercial Vehicle Operator II
CVOP 1040 is the second and final 120-clock hour course in Commercial Truck Driving. This course is designed to provide classroom instruction in loading and unloading, plus hands-on practice in routine equipment maintenance and making driver’s daily log book entries. Several long-haul trips are taken, and the Department of Transportation (DOT) written and driving exams are administered. Co-requisite: CVOP 1013

Welding

WLDG 1028 Introduction to Shielded Metal Arc Welding (SMAW)
This introduction to shielded metal arc welding process emphasizes power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction also covers SMAW fillet welds in various positions. 128 contact hours

WLDG 1034 Introduction to Gas Tungsten Arc (GTAW) Welding
This is an introduction to the principles of gas tungsten arc welding (GTAW), setup/use of GTAW equipment, and safe use of tools and equipment. Welding instruction covers various positions on joint design. 128 contact hours

WLDG 1035 Introduction to Pipe Welding
This introduction to welding of pipe using the shielded metal arc welding process, includes electrode selection, equipment set-up, and safe shop practices, with an emphasis on weld positions 1G and 2G, using various electrodes. 128 contact hours

WLDG 2043 Advanced Shielded Metal Arc Welding (SMAW)
Training is provided with various electrodes in shielded metal arc welding processes with open V-groove joint positions based on accepted welding codes. 128 contact hours
COURSE DESCRIPTIONS

WLDG 2051 Advanced Gas Tungsten Arc Welding (GTAW)
This course focuses on advanced topics in GTA W welding, including welding in various positions and directions. 128 contact hours.

WLDG 2053 Advanced Pipe Welding
This course focuses on advanced topics involving welding of pipe using the shielded metal arc welding process. Topics include electrode selection, equipment setup, and safe shop practices, with an emphasis on weld positions 5G and 6G using various electrodes. 128 contact hours.

PFPB 1001 Pipefitting Certificate: Introduction to Pipefitting: Pipefitting 1B (Continuing Education Course)
This course offers instruction in pipefitting hand and power tools, threaded pipe, ladders and scaffolds, motorized equipment, excavation, underground pipe and installation, drawings and detail sheets, piping systems, and trade math. 128 contact hours.

PFPB 1043 Pipefitting Fabrication and Blueprint Reading: Pipefitting II (Continuing Education Course)
This course offers instruction in socket and butt weld pipe fabrication, rigging, pipe hangers and supports, advanced blueprint reading, standards and specifications, and advanced trade math. 128 contact hours.

PFPB 2032 Pipefitting Standards, Specifications, Installation: Pipefitting III (Continuing Education Course)
This course promotes skill development related to these areas: motorized equipment, above-ground pipe installation valves, field routing and vessel trim, spring can supports, testing piping systems and equipment, basic plumbing, planning work activities, and non-destructive testing (NDT). 72 contact hours.

PFPB 2033 Pipefitting, Advanced Fabrication and Installation: Pipefitting IV (Continuing Education Course)
This course promotes skill development in these areas: advanced pipe fabrication, aligning pipe to rotating equipment, steam traps, inline specialties, special piping, hot taps, and maintaining valves. 72 contact hours.
San Jacinto Community College District

Index
INDEX

A
ABDR 1303 Vehicle Design and Structural Analysis .................................. 199
ABDR 1307 Collision Repair Welding ...................................................... 199
ABDR 1315 Vehicle Trim and Hardware .................................................. 199
ABDR 1323 Front and Rear Wheel Alignment ..................................... 199
ABDR 1349 Auto Plastic and Sheet Molding Compound Repair ........... 199
ABDR 1431 Basic Refinishing ................................................................. 199
ABDR 1441 Structural Analysis and Damage Report I ....................... 199
ABDR 1449 Automotive Plastic and Sheet Molding Compound Repair .. 199
ABDR 1519 Basic Metal Repair ............................................................... 199
ABDR 1553 Non-Structural Metal Repair .............................................. 199
ABDR 1558 Intermediate Refinishing ..................................................... 199
ABDR 2255 Collision Repair Estimating ............................................... 199
ABDR 2257 Collision Shop Management ............................................ 199
ABDR 2353 Color Analysis and Paint Matching .................................... 199
ABDR 2380 Cooperative Education - Autobody/Collision and Repair Technology ................................................................. 200
ABDR 2502 Auto Body Mechanical and Electrical Service ................. 200
ABDR 2541 Major Repair and Panel Replacement ............................... 200
ABDR 2549 Advanced Refinishing ......................................................... 200
ABDR 2551 Specialized Refinishing Techniques .................................... 200
Academic Calendar ............................................................................. 5
Academic Fresh Start for Courses at San Jacinto College .................. 7
Academic Plan ...................................................................................... 38
Academic Requirements for Receiving Financial Aid ....................... 37
Academic Status .................................................................................. 65
Academic Suspension Period ............................................................... 65
Accounting .......................................................................................... 86
Accounting (3ACNT) ........................................................................... 86
Accounting (SACNT) ........................................................................... 86
Accreditation ....................................................................................... 5
ACCT 2301 Principles of Financial Accounting ................................... 200
ACCT 2302 Principles of Managerial Accounting ............................... 200
Accuplacer ESL Testing Requirement .............................................. 13
ACNT 1303 Introduction to Accounting I ........................................... 200
ACNT 1304 Introduction to Accounting II ......................................... 200
ACNT 1311 Introduction to Computerized Accounting ...................... 200
ACNT 1313 Computerized Accounting Application ......................... 200
ACNT 1329 Payroll and Business Tax Accounting ............................. 200
ACNT 1331 Federal Income Tax Individual ...................................... 201
ACNT 2303 Intermediate Accounting I .............................................. 201
ACNT 2304 Intermediate Accounting II ............................................. 201
ACNT 2309 Cost Accounting ................................................................. 201
ACNT 2366 Practicum-Accounting ...................................................... 201
ACNT 2367 Practicum-Accounting ...................................................... 201
Additional Associate Degrees (Second Degrees) .............................. 79
Additional Expenses ........................................................................... 26
Additional Restrictions for Stafford and PLUS Loans ..................... 39
Admission Requirements For Individuals With Other Types Of Visas .12
Admission Requirements for Non U.S. Citizens and Students with no current Visa Status ......................................................... 12
Admission Types .................................................................................. 7
Admissions .......................................................................................... 6
Advanced information Technology Security Specialty (6IT-AITS) .... 114
Advanced Networking (SIT-ANW) ..................................................... 114
Advanced Placement Program (AP) ................................................... 57
Advanced Placement Without Credit .................................................. 65
Advanced Simulation and Game Design (SIT-GAMS) ....................... 118
Advanced Technical Certificate ......................................................... 77
Advising – College Preparatory Studies ............................................. 15
Aeronautical Technology ................................................................. 87
AFSC 1201 Foundations of United States Air Force I ....................... 201
AFSC 1202 Foundations of United States Air Force II .................... 201
AFSC 2201 The Evolution of USAF Air and Space Power I ............. 201
AFSC 2202 The Evolution of USAF Air and Space Power II ............ 201
AGRI 1131 The Agricultural Industry ............................................... 201
AGRI 1309 Computer in Agriculture ............................................... 201
AGRI 1315 Horticulture ..................................................................... 201
AGRI 1319 Introductory Animal Science ......................................... 201
AGRI 1407 Agronomy ......................................................................... 201
AGRI 2317 Introduction to Agricultural Economics ....................... 202
AGRI 2321 Livestock Evaluation I ....................................................... 202
Air Conditioning Technology ............................................................ 89
Air Conditioning Technology (3AIRC) ............................................. 90
Air Conditioning Technology (4AIRC) ............................................. 89
Air Conditioning Technology (6AIRC) ............................................. 89
AIRP 1215 Private Flight ................................................................. 202
AIRP 1301 Air Navigation ................................................................. 202
AIRP 1307 Aviation Meteorology ..................................................... 202
AIRP 1311 Flight Theory ................................................................. 202
AIRP 1341 Advanced Air Navigation .............................................. 202
AIRP 1343 Aerodynamics ................................................................. 202
AIRP 1345 Aviation Safety ................................................................. 202
AIRP 1451 Instrument Ground School ............................................. 202
AIRP 2236 Certified Flight Instructor-Airplane ................................ 202
AIRP 2239 Commercial Flight (Commercial Pilot) ......................... 202
AIRP 2242 Flight Instructor-Instrument Airplane ............................ 202
AIRP 2243 Flight Instructor-Multiengine Airplane ......................... 202
AIRP 2250 Instrument Flight (Instrument Pilot) ............................... 203
AIRP 2251 Multi-Engine Flight .......................................................... 203
AIRP 2331 Advanced Meteorology ................................................... 203
AIRP 2332 Aircraft Systems ............................................................... 203
AIRP 2337 Commercial Ground School ......................................... 203
AIRP 2355 Propulsion Systems .......................................................... 203
AIRP 2357 Turbine Aircraft Systems Ground School ..................... 203
Annual Security and Fire Safety Report ........................................... 5
ANTH 2301 Introduction to Physical Anthropology ......................... 203
ANTH 2302 Introduction to Archaeology ........................................ 203
ANTH 2346 General Anthropology .................................................... 203
ANTH 2351 Cultural Anthropology .................................................... 203
Applications Programming (4IT-APPL) ............................................ 114
Art and Design .................................................................................. 90
Art and Design (3ART-DSN) .............................................................. 91
Art and Design (4ART-DSN) .............................................................. 91
Art and Design (6ART-DSN) .............................................................. 90
Art-Welding (6WLD-ART) ................................................................. 190
ARTC 1302 Digital Imaging I .............................................................. 203
ARTC 1317 Design Communication I ............................................... 203
ARTC 1321 Illustration ........................................................................ 203
ARTC 1325 Introduction to Computer Graphics ................................ 204
ARTC 1327 Typography ..................................................................... 204
ARTC 1353 Computer Information Technology ............................... 204
ARTC 2331 Illustration Concepts ....................................................... 204
ARTC 2335 Portfolio Development for Graphic Design .................... 204
ARTC 2347 Design Communication II ............................................. 204
ARTC 2366 Field Experience-Graphic Design, Commercial Art ....... 204
ARTS 1301 Art Appreciation ............................................................... 204
ARTS 1303 Art History I (Prehistoric to the 14th century) ............... 204
ARTS 1304 Art History II (14th century to the present) ..................... 204
ARTS 1311 Design I (2-dimensional) ............................................... 204
ARTS 1312 Design II (3-dimensional) .............................................. 204
ARTS 1316 Drawing I ........................................................................ 204
ARTS 1317 Drawing II ....................................................................... 204
ARTS 2311 Design III ........................................................................ 204
ARTS 2313 Design Communications I ............................................ 205
ARTS 2314 Design Communications II ............................................ 205
ARTS 2316 Painting I ......................................................................... 205
ARTS 2317 Painting II ....................................................................... 205
ARTS 2323 Life Drawing I ................................................................. 205
ARTS 2324 Life Drawing II ............................................................... 205
ARTS 2326 Sculpture I ....................................................................... 205
ARTS 2327 Sculpture II ................................................................. 205
ARTS 2333 Printmaking I ................................................................. 205
ARTS 2334 Printmaking II ................................................................. 205
ARTS 2341 Art Metals ................................................................. 205
ARTS 2342 Art Metals II ................................................................. 205
ARTS 2346 Ceramics I ................................................................. 205
ARTS 2347 Ceramics II ................................................................. 205
ARTS 2348 Digital Art I ................................................................. 205
ARTS 2349 Digital Art II ................................................................. 205
ARTS 2356 Fine Arts Photography I ................................................ 205
ARTS 2357 Fine Arts Photography II ............................................... 205
ARTS 2366 Watercolor I ................................................................. 205
ARTS 2367 Watercolor II ................................................................. 205
ARTS 2389 Academic Cooperative-Art ............................................ 205
ARTV 1303 Basic Animation ............................................................. 206
ARTV 1341 3-D Animation I ............................................................. 206
ARTV 1345 3-D Modeling and Rendering ....................................... 206
ARTV 1351 Digital Video ................................................................. 206
ARTV 2301 3-D Animation ............................................................... 206
ARTV 2341 Advanced Digital Video ............................................... 206
ARTV 2351 3-D Animation II ............................................................ 206
Associate Transfer Degrees ............................................................. 69
Associate Degree Nursing (RN) (3NUR-ADN), Generic Program ...... 175
Associate Degree Nursing, Mobility (last class of students from Spring 2015 to Spring 2016) ................................................ 177
Associate Degree Nursing, Transition ........................................... 176
314 www.sanjac.edu
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOVT 2304</td>
<td>Introduction to Political Science</td>
<td>244</td>
</tr>
<tr>
<td>GOVT 2305</td>
<td>Federal Government (Federal Constitution and Topics)</td>
<td>244</td>
</tr>
<tr>
<td>GOVT 2306</td>
<td>Texas Government (Texas Constitution and Topics)</td>
<td>244</td>
</tr>
<tr>
<td>GOVT 2311</td>
<td>Mexican-American Politics</td>
<td>244</td>
</tr>
<tr>
<td>GOVT 2389</td>
<td>Academic Cooperative</td>
<td>244</td>
</tr>
<tr>
<td>Grade Point Average (GPA)</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Grading System</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Grade Range</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>HITT 2361</td>
<td>Clinical-Health Information/Medical Records Technology/Technician</td>
<td>248</td>
</tr>
<tr>
<td>HITT 2370</td>
<td>Cancer Data Management III</td>
<td>248</td>
</tr>
<tr>
<td>HMSY 1337</td>
<td>Introduction to Homeland Security</td>
<td>248</td>
</tr>
<tr>
<td>Honda Professional Automotive Career Training (PACT) Program (3AUTO-H)</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Honda Professional Automotive Career Training (PACT) Program (4AUTO-H)</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Honda Professional Automotive Career Training (PACT) Program (EAUTO-H)</td>
<td>101</td>
<td></td>
</tr>
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<td>Honesty Code</td>
<td></td>
<td>0.47</td>
</tr>
<tr>
<td>How to Request Public Information</td>
<td>0.49</td>
<td></td>
</tr>
<tr>
<td>HPRS 1105</td>
<td>Medical Law/Ethics for Health Professions</td>
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<td>Essentials of Medical Terminology</td>
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<td>Introduction to Health Professions</td>
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<td>HPRS 1202</td>
<td>Wellness and Health Promotion</td>
<td>248</td>
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<td>HPRS 1206</td>
<td>Essentials of Medical Terminology</td>
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<td>HPRS 1271</td>
<td>Medical Terminology</td>
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<td>HPRS 1304</td>
<td>Basic Health Professional Skills</td>
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</tr>
<tr>
<td>HPRS 2200</td>
<td>Pharmacology for Health Professions</td>
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</tr>
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<td>HPRS 2210</td>
<td>Basic Health Professional Skills</td>
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<td>HPRS 2301</td>
<td>Pathophysiology</td>
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</tr>
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<td>HPRS 2302</td>
<td>Medical Terminology for Allied Health</td>
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<td>Field Experience—International Business/Trade/Commerce</td>
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<td>INEW 2340</td>
<td>Object-Oriented Design - Game Design</td>
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<td>Information Technology Security</td>
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<td>Introduction to Clinical Laboratory Science</td>
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<td>Hematology</td>
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<td>Practicum I-Medical Laboratory Technician</td>
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<td>Advanced Topic in Medical Laboratory Technician</td>
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<td>Practicum III-Medical Laboratory Technician</td>
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<td>Advanced Topics in Medical Laboratory Technician</td>
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<td>MLAB 2401</td>
<td>Clinical Chemistry</td>
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<td>Clinical Microbiology/Food Technology</td>
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<td>Modified Early College Academy (MECA)-North Campus</td>
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<td>Mopar College Automotive Program (CAP) (3AUTO-C)</td>
<td>96</td>
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<td>Mopar College Automotive Program (CAP) (SAUTO-C)</td>
<td>96</td>
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<td>Introduction to Ultrasonics: Equipment and Methodology</td>
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<td>Clinical 1-Magnetic Resonance Imaging Technology/Technician</td>
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<td>Clinical - Radiologic Technology/Sciences - Radiographer</td>
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<td>Audio Electronics Troubleshooting</td>
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<td>Audio Engineering I</td>
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<td>Musical Instrument Digital Interface</td>
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<td>Live Sound II</td>
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<td>Audio Engineering Practices</td>
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<td>Class Voice I</td>
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<td>Class Voice III</td>
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<td>Class Voice IV</td>
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<td>Class Percussion I</td>
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<td>Class Guitar II</td>
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<td>Theory of Music VI</td>
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<td>Music Fundamentals</td>
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<tr>
<td>NAUT 1171</td>
<td>Medical Care Provider</td>
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<td>NAUT 1174</td>
<td>Maritime Regulation and Management</td>
</tr>
<tr>
<td>NAUT 1272</td>
<td>Marine Cargo Operations I</td>
</tr>
<tr>
<td>NAUT 1273</td>
<td>Engineering Familiarization</td>
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<td>Maritime Cargo Operations II</td>
</tr>
<tr>
<td>NAUT 1276</td>
<td>Seamenship II</td>
</tr>
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</tr>
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<td>Basic Safety and Survival</td>
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<td>Introduction to Safety and Shipping</td>
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<td>NAUT 2171</td>
<td>Upgrade to Apprentice Mate</td>
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<td>Radar Observer Unlimited</td>
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<td>NAUT 2274</td>
<td>Basic Stability and Ship Construction</td>
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<td>Bridge Resource Management and Shiphandling</td>
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<td>Film Interpretation of Weldments</td>
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<td>Intermediate Ultrasonics: Flaw Detection and Sizing</td>
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<td>NOTE 1405</td>
<td>Introduction to Ultrasonics: Level 1 &amp; 2</td>
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<td>Liquid Penetrant/Magnetic Particle Testing: Level 1 &amp; 2</td>
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<td>Advanced Ultrasonics: Phased Array and A.U.T.</td>
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<td>Preparation for Certified Welding Inspector Exam</td>
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<td>Pressure Piping Inspection</td>
</tr>
<tr>
<td>Network Administration - CISCO</td>
<td></td>
</tr>
</tbody>
</table>

www.sanjac.edu
Refund Policy ............................................. 32
Regaining Eligibility .................................. 38
Registration ................................................. 19
RELE 1201 Principles of Real Estate I ............. 284
RELE 1211 Law of Contracts ......................... 284
RELE 1228 Principles of Real Estate II ............... 284
RELE 1300 Contract Forms and Addenda ............ 284
RELE 1303 Real Estate Appraisal ...................... 284
RELE 1307 Real Estate Investments ................... 284
RELE 1309 Real Estate Law ............................. 284
RELE 1311 Real Estate Management ................. 284
RELE 1321 Real Estate Marketing ..................... 284
RELE 1323 Real Estate Computer Application ......... 284
RELE 1325 Real Estate Mathematics ................ 284
RELE 2301 Law of Agency .............................. 285
RELE 2311 Real Estate Brokerage .................... 285
RELE 2366 Practicum-Real Estate ..................... 285
RELE 2367 Practicum-Real Estate ..................... 285
Relevant Definition ....................................... 23
Repair Assistant (6ACRT-AST) ......................... 92
Repeatability of Courses ............................... 30
Repeating Courses ....................................... 41
Repetition of Courses .................................... 20
Residence Status for Tuition Purposes ................ 23
Residency .................................................. 23
Respiratory Care .......................................... 186
Respiratory Care (3RESP) .............................. 187
Restaurant Management (3CULA-RSTR) .......... 184
Restaurant Management (4CULA-RSTR) .......... 134
Restaurant Management (SCULA-RSTR) .......... 133
Restaurant Management (6CULA-RSTR) .......... 133
Restaurant Management (MCLA-RSTR) .......... 133
Retention and Disposal of Student Records ......... 65
Retention of Student Work .............................. 48
Review for Academic Associate Degree Completion for Students Completing the State-mandated Core Curriculum ... 80
Review Procedure ........................................ 38
RNSG 1105 Nursing Skills I ............................ 285
RNSG 1108 Dosage Calculations for Nursing ......... 285
RNSG 1115 Health Assessment ........................ 285
RNSG 1144 Nursing Skills II ........................... 285
RNSG 1160 Clinical Nursing Introduction ............ 285
RNSG 1161 Clinical - Registered Nursing .......... 285
RNSG 1166 Practicum-Nursing Transition .......... 285
RNSG 1191 Special Topics in Nursing ................. 285
RNSG 1215 Health Assessment ........................ 285
RNSG 1227 Transition to Professional Nursing ....... 286
RNSG 1251 Care of the Childbearing Family .......... 286
RNSG 1260 College Concepts of Professional Nursing Practice I for Articulating Students .................. 286
RNSG 1261 Clinical Nursing Common Concepts ..... 286
RNSG 1262 Clinical Nursing Complex Concepts .... 286
RNSG 1263 Clinical Nursing Childbearing Families ... 286
RNSG 1271 Concepts of Adult Health ................. 286
RNSG 1301 Pharmacology .............................. 286
RNSG 1341 Common Concepts of Adult Health .... 286
RNSG 1343 Complex Concepts of Adult Health .... 286
RNSG 1413 Foundations for Nursing Practice ....... 286
RNSG 1417 Concepts of Professional Nursing Practice I for Articulating Students .................. 287
RNSG 2121 Professional Nursing Leadership and Management ........................................... 287
RNSG 2130 Professional Nursing Review and Licensure Preparation ....................................... 287
RNSG 2163 Clinical Concepts of Nursing Practice Ilib for Articulating Students ......................... 287
RNSG 2201 Care of Children and Families .......... 287
RNSG 2207 Adaptation to the Role of Nursing ....... 287
RNSG 2208 Maternal Newborn Nursing and Women's Health ............................................. 287
RNSG 2213 Mental Health Nursing .................... 287
RNSG 2231 Advanced Concepts of Adult Nursing .. 287
RNSG 2240 Clinical Registered Nursing .......... 287
RNSG 2261 Clinical Mental Health Nursing .......... 287
RNSG 2262 Clinical Nursing Care of Children and Families ............................................. 287
RNSG 2263 Clinical - Registered Nursing .......... 288
RNSG 2271 Concepts of Nursing Practice IIib for Articulating Students ................................. 288
RNSG 2332 Enhanced Concepts of Adult Health ............................................. 288
RSP 1166 Respiratory Care Practicum I ............... 288
RSP 1167 Respiratory Care Practicum II .............. 288
RSP 1266 Respiratory Care Practicum II ............... 288
RSP 1267 Respiratory Care Practicum I ............... 288
RSP 1325 Respiratory Care Sciences .................. 288
RSP 1340 Advanced Cardiopulmonary Anatomy and Physiology ........................................... 288
RSP 1429 Respiratory Care Fundamentals I ........... 288
RSPT 1431 Respiratory Care Fundamentals II ........ 288
RSPT 1460 Respiratory Care Clinical I ................. 288
RSPT 2130 Respiratory Care Examination Preparation ............................................. 288
RSPT 2131 Simulations in Respiratory Care ........ 288
RSPT 2167 Respiratory Care Practicum II .............. 288
RSPT 2258 Respiratory Care Patient Assessment .... 289
RSPT 2266 Respiratory Care Practicum III ............ 289
RSPT 2267 Respiratory Care Practicum IV ............. 289
RSPT 2310 Cardiopulmonary Disease ................ 289
RSPT 2314 Mechanical Ventilation .................... 289
RSPT 2317 Respiratory Care Pharmacology .......... 289
RSPT 2325 Cardiopulmonary Diagnostics ............ 289
RSPT 2353 Neonatal/Pediatric Cardiopulmonary Care ............................................. 289
RSPT 2355 Critical Care Monitoring ................... 289
RSPT 2360 Respiratory Care Clinical I ................. 289
RSPT 2361 Respiratory Care Clinical II ................. 289
RSPT 2362 Respiratory Care Clinical IV ............... 289
RSPT 2453 Neonatal/Pediatric Cardiopulmonary Care ............................................. 289
RSPT 2471 Mechanical Ventilation II ................. 289
RSTO 1301 Beverage Management ...................... 289
RSTO 1304 Dining Room Service ....................... 289
RSTO 1313 Hospitality Supervision .................... 289
RSTO 1325 Purchasing for Hospitality Operations .... 289
RSTO 2301 Principles of Food and Beverage Control ............................................. 290
RSTO 2307 Catering .................................... 290
RSTO 2365 Practicum (Or Field Experience) - Restaurant, Culinary, and Catering Management/Manager ............................................. 290
RSTO 2405 Management of Food Production and Service ............................................. 290
RSTO 2431 Food Service Management ................ 290

S

San Jacinto Community College District Vision, Mission, and Values ............................................. 4
Satisfactory Academic Financial Aid Components ............................................. 37
Schedule Changes ...................................... 20
Schedule Disclaimers .................................... 19
Scholarly Achievement .................................. 50
Scholarships (aid That Does Not Have to Be Repaid) ............................................. 37
School Food Service Specialty (6DIET-SPSV) .......... 136
SCT 1307 Applied Human Anatomy and Physiology I ............................................. 290
SCT 1313 Health Assessment ............................ 290
SCT 1395 Special Topics in Analytical Chemistry ............................................. 290
SCT 1414 Applied General Chemistry I ................. 290
SCWK 2301 Assessment and Case Management ............................................. 290
Senior Citizens Enrolling in Classes .................... 22
Services and Activities .................................... 44
SGNL 1401 Beginning American Sign Language I ............................................. 290
SGNL 1402 Beginning American Sign Language II ............................................. 290
Sheet Metal Welder (CE-7WDL) ........................ 193
Shelton Early College High School-North Campus ............................................. 10
Simulation and Game Design (4T1-GAMS) .............. 117
Simulation and Game Programming Certificate Program ............................................. 117
Six-Drop Limit Provisions (Tec 51.907) .................... 21
Skills Prerequisites ........................................ 15
SOCI 1302 Introduction to Sociology ................. 290
SOCI 1306 Social Problems ............................ 290
SOCI 2301 Marriage and the Family ............... 291
SOCI 2306 Human Sexuality ......................... 291
SOCI 2319 Minority Studies I .......................... 291
SOCI 2335 Criminal Justice ................................ 291
SOCW 2361 Introduction to Social Work .............. 291
Sound Recording (6MUS-SOUND) ....................... 170
SPAN 1411 Beginning Spanish I ........................ 291
SPAN 1412 Beginning Spanish II ........................ 295
SPAN 1415 Essentials of Spanish for Health Vocations ............................................. 291
SPAN 2311 Intermediate Spanish I ..................... 291
SPAN 2312 Intermediate Spanish II ..................... 291
SPCH 1145 Forensic Activities ......................... 291
SPCH 1311 Introduction to Speech Communication ............................................. 291
SPCH 1335 Critical Speech ................................ 291
SPCH 1381 Interpersonal Communications .......... 292
SPCH 1382 Business and Professional Speech .... 292
SPCH 1342 Voice and Diction .......................... 292
SPCH 2333 Discussion and Small Group Communication ............................................. 292
SPCH 2335 Argumentation and Debate ................ 292
SPCH 2336 Forensics .................................... 292
SPCH 2341 Oral Interpretation ........................ 292
SRGT 1260 Clinical I Surgical .......................... 292
SRGT 1261 Clinical II Surgical .......................... 292
SRGT 1263 Clinical - Surgery Technology/Technologist ............................................. 292
SRGT 1360 Clinical II Surgical .......................... 292
SRGT 1505 Introduction to Surgical Technology ............................................. 292

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