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- Business
- Construction, Industry, Manufacturing and Transportation
- Education
- Health Sciences
- Public Safety and Human/Consumer Services
- Science, Technology, Engineering and Math (STEM)
- Social and Behavioral Science
AREAS OF STUDY

- Arts, Humanities, Communications and Design
- Business
- Construction, Industry, Manufacturing and Transportation
- Education
- Health Sciences
- Public Safety and Human/Consumer Services
- Science, Technology, Engineering and Math (STEM)
- Social and Behavioral Science
ARTS, HUMANITIES, COMMUNICATIONS AND DESIGN

- Art and Design, Associate of Applied Science Degree
- Art and Design, Certificate of Technology
- Art and Design, Occupational Certificate
- Communications, Associate of Arts
- Fine Arts, Associate of Arts
- Interior Design, Associate of Applied Science
- Interior Design, Pre-Professional Level 2 Certificate
- Music Recording, Associate of Applied Science
- Music, Associate of Arts in Music
- Music, Sound Recording, Occupational Certificate
- Music, Techniques of Audio Engineering, Certificate of Technology

Program Information
Are you looking to take your passion of art and turn it into a well-paying career? If so, our art & design technical program is what you are looking for. Here you will gain the skills and knowledge required to start a career in graphic design. Graphic designers are the keystone in creating design and communication solutions in every job sector. You will have the opportunity to learn from industry experienced instructors in our modern computer labs and studios. If you are artistic, creative and professional, turn those interests into a career at San Jacinto College South campus.

The San Jacinto College art and design Associate of Applied Science (AAS) program:

- Is designed to provide basic preparation for entry-level employment in areas such as visual advertising, graphic design and media communication.
- Develops skills in both print and digital media, web design, digital video and photography and motion graphics.
- Gives the student hands-on experience in building a well-rounded and professional portfolio of work.

Career Opportunities
The San Jacinto College art and design AAS program opens students to pursue careers as:

- Art Director
- Layout Artist
- Brand Identity Designer
- Digital Imaging Artist
- Logo Designer
- Illustrator
- Multimedia Designer
- Prepress Technician
- Web Designer

Earning Potential
Graphic Designer median salary: $49,570 per year¹

¹ Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact Jeffrey.McGee@sjcd.edu - Department Chair
Brian.Piana@sjcd.edu - Faculty
Michael.Yost@sjcd.edu - Faculty

Campus
South Campus

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, including design communications, digital media, web design, photography, and video.

***Those students interested in transfer degrees in Art & Design should visit the the Fine Arts, Associate of Arts (p. 15) page.

Associate of Applied Science Degree
The associate of applied science degree is for students who want to earn a two-year degree while preparing for jobs in the design industry. Building off the certificate of technology, students will complete additional
courses in drawing, design and art history to further strengthen their skillset.

Plan of Study

South Campus

3ART-DSN

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>PHTC 1311</td>
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</table>

College Preparatory courses (those courses which have numbers beginning with 0) do not apply toward the associate of applied science degree. Technical courses do not transfer to a senior institution. See an Art and Design Department Counselor for information.

Capstone Experience: ARTC 2335 Portfolio Development for Graphic Design or ARTC 2366 Field Experience-Graphic Design, Commercial Art and Illustration

Art and Design, Certificate of Technology

Program Information

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Art and Design, Occupational Certificate

Campus
South Campus

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***Those students interested in transfer degrees in Art & Design should visit the the Fine Arts, Associate of Arts (p. 15) page.

Certificate of Technology
This certificate of technology is designed to meet the needs of students who desire to enter the design workforce with a more developed skillset. Building off the occupational certificate, students will complete additional courses in design communications, animation and portfolio development. All courses required for the certificate of technology may be used in completing the art and design Associate of Applied Science degree.

Plan of Study
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Capstone Experience: ARTC 2335 Portfolio Development for Graphic Design or ARTC 2366 Field Experience-Graphic Design, Commercial Art and Illustration

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- Art Director
- Layout Artist
- Brand Identity Designer
- Digital Imaging Artist
- Logo Designer
- Illustrator
- Multimedia Designer
- Prepress Technician
- Web Designer

Earning Potential
Graphic Designer median salary: $49,570 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact Jeffrey.McGee@sjcd.edu · Department Chair
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, including design communications, digital media, web design, photography, and video.

***Those students interested in transfer degrees in Art & Design should visit the the Fine Arts, Associate of Arts (p. 15) page.

Occupational Certificate
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 the art and design Associate of Applied Science degree.

Plan of Study
South Campus

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>First Term</td>
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<tr>
<td>ARTC 1325</td>
<td>Introduction to Computer Graphics</td>
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<tr>
<td>IMED 1301</td>
<td>Introduction to Digital Media</td>
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<tr>
<td>PHTC 1311</td>
<td>Fundamentals of Photography</td>
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<td>ARTV 1351</td>
<td>Digital Video</td>
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<td>ARTC 1302</td>
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<td>IMED 1316</td>
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<td>ARTC 1327</td>
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<td>Total Credits</td>
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Capstone Experience: ARTC 1327 Typography

Communications, Associate of Arts

Write Your Future
Most people are concerned with information, and they want only the latest. They may get their information from various sources such as newspapers, websites, television, radio, social networking sites and RSS feeds, but one thing is constant — it takes well-trained media professionals to deliver content.

Your Future Starts Here
Your career as a media professional can start at San Jacinto College. Here you will learn the foundation of how communication industries operate and the principles of media content generation. Our associate degree program also gives you the opportunity to work on the College’s student publication, the San Jacinto Times. From here you can go on to a four-year university, well-prepared for further study in journalism, broadcasting, public relations, advertising or photography.

Transfer Information
San Jacinto College offers many courses in the transfer path that meet the requirements of a major at four-year and upper-level colleges and universities baccalaureate degree programs. Students may prepare to transfer to a particular program at an upper-level institution by either:

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 selecting courses as specified in the transfer plans developed by San Jacinto College in cooperation with the upper-level institution of the student’s choosing.

Career Opportunities
A degree in Communications from San Jacinto College helps students begin careers in fields such as:

- Local reporter
- Assistant news producer
- Public relations specialist
- Advertising sales/account manager
- Creative artist/designer – advertising
- Copy editor
- Social media manager
- Production assistant/manager – television or film

Earning Potential

- Public relations specialist - $66,759*
- Reporter/Correspondent - $47,035*
- Media and communication - $45,961*
- Advertising Sales Agent - $57,976*
- Proofreaders - $40,375*
- News producer/director - $69,995*

*Source: www.TexasWages.com, Gulf Coast region, 2017

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 42-semester credit hour (SCH) core curriculum, the six-SCH institutional option, and a 12-hour transfer path, 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, Counseling, & Completion office on each 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 communications.

All Campuses
1COMM

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<tr>
<th>Code</th>
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<td>Transfer Path</td>
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<td>CHIN, COMM, ENGL, FREN, GERM, SGNL, SPAN, or SPCH</td>
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<td>PSYC 1300 Learning Framework</td>
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<td>Academic elective (if student passes the computer literacy exam)</td>
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<td>MATH 1316 Plane Trigonometry</td>
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<td>MATH 1324 Mathematics for Business and Social Sciences</td>
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<td>MATH 1325 Calculus for Business and Social Sciences</td>
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<td>MATH 1332 Contemporary Mathematics (Quantitative Reasoning)</td>
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<td>MATH 1342 Elementary Statistical Methods (Statistics)</td>
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<td>MATH 2318 Linear Algebra</td>
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<td>MATH 2320 Differential Equations</td>
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<td>ENGL 2328 American Literature II</td>
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<td>ENGL 2332 World Literature I</td>
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<td>ENGL 2333 World Literature II</td>
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<td>ENGL 2341 Forms of Literature: Literature and Film</td>
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<td>ENGL 2351 Mexican American Literature</td>
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<td>GEOG 1302 Human Geography</td>
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<td>HIST 2321 World Civilization I</td>
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<td>PHIL 1301 Introduction to Philosophy</td>
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<td>PHIL 2306 Introduction to Ethics</td>
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<td>ARTS 1301 Art Appreciation</td>
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<td>ARTS 1303 Art History I (Prehistoric to the 14th century)</td>
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<td>ARTS 1304 Art History II (14th century to the present)</td>
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<td>DANC 2303 Dance Appreciation</td>
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<td>DRAM 1310 Introduction to Theater</td>
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<td>DRAM 2366 Introduction to Cinema: Film Appreciation I</td>
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<td>MUSI 1306 Music Appreciation</td>
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<td>MUSI 1307 Music Literature</td>
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<td>MUSI 1310 American Music</td>
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<tr>
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<td>HIST 1301 United States History I</td>
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<tr>
<td></td>
<td>HIST 1302 United States History II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HIST 2301 Texas History</td>
<td></td>
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</table>
HIST 2327  Mexican American History I
HIST 2328  Mexican American History II

Government/Political Science
Select two of the following:

GOVT 2305  Federal Government (Federal Constitution and Topics) 6
GOVT 2306  Texas Government (Texas Constitution and Topics) 6

Social and Behavioral Sciences
Select one of the following:

ANTH 2302  Introduction to Archaeology
ANTH 2346  General Anthropology
ANTH 2351  Cultural Anthropology
ECON 2301  Principles of Macroeconomics
ECON 2302  Principles of Microeconomics
GEOG 1303  World Regional Geography
GOVT 2304  Introduction to Political Science
HIST 2311  Western Civilization I
HIST 2312  Western Civilization II
PSYC 2301  General Psychology
SOCI 1301  Introduction to Sociology
SOCI 2319  Minority Studies I

Component Area Option
The Component Area Option includes the courses listed below as well as all other courses listed in the Core Curriculum that have not been used to fulfill a previous area of the Core. Select 6 semester credit hours (SCH) to fulfill this component. 5

SPCH 1311  Introduction to Speech Communication
SPCH 1315  Public Speaking
SPCH 1318  Interpersonal Communication
SPCH 1321  Business and Professional Speech
PHED 1164  Introduction to Physical Fitness and Wellness
CHIN 1411  Beginning Chinese I
CHIN 1412  Beginning Chinese II
FREN 1411  Beginning French I
FREN 1412  Beginning French II
GERM 1411  Beginning German I
GERM 1412  Beginning German II
SGNL 1401  Beginning American Sign Language I
SGNL 1402  Beginning American Sign Language II
SPAN 1411  Beginning Spanish I
SPAN 1412  Beginning Spanish II

Total Credits 48

1  MATH 1324 Mathematics for Business and Social Sciences, MATH 1325 Calculus for Business and Social Sciences, and MATH 1332 Contemporary Mathematics (Quantitative Reasoning) are not recommended for students pursuing mathematics or science.
2  MATH 1342 is required for a bachelor's degree in nursing.
3  Students must be simultaneously co-enrolled in the co-requisite science lab.

Art & Design
Students interested in an Art & Design concentration should reference the Transfer Plans tab.
(North, Central, South)

Dance
Students interested in a Dance concentration should reference the Transfer Plans tab.
(South)

Music
Students interested in a music concentration should reference the Music, Associate of Arts in Music (p. 21) page.

Theatre & Film
Students interested in a Theatre & Film concentration should reference the Transfer Plans tab.
(Central, South)

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 42-semester credit hour (SCH) core curriculum, the six-SCH institutional option, and a 12-hour transfer path, 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, Counseling, & Completion office on each 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 communications.

**Art & Design**

Students interested in an Art & Design concentration should reference the Transfer Plans tab.

(North, Central, South)

**Dance**

Students interested in a Dance concentration should reference the Transfer Plans tab.

(South)

**Music**

Students interested in a music concentration should reference the Music, Associate of Arts in Music (p. 21) page.

**Theatre & Film**

Students interested in a Theatre & Film concentration should reference the Transfer Plans tab.

(Central, South)

**All Campuses**

1FINEARTS

It is recommended that the transfer path courses come from the student’s chosen discipline. For more information, contact the Department Chair on your campus.

Randy Snyder (Randy.Snyder@sjcd.edu) - North Campus - Art & Design / Music (p. 21)

Todd Allison (Todd.Allison@sjcd.edu) - Central Campus - Art & Design / Theatre & Film

Lynne Brandt (Lynne.Brandt@sjcd.edu) - Central Campus - Music (p. 21)

Jeffrey McGee (Jeffrey.Mcgee@sjcd.edu) - South Campus - Art & Design / Dance / Theatre & Film

<table>
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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Transfer Path</td>
<td>12 Semester Credit Hours in any combination of: ARTS, DANC, DRAM, MUAP, MUEN or MUSI</td>
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</tbody>
</table>

**San Jacinto College 2019-2020**
Select one of the following:

- Social and Behavioral Sciences
- Government/Political Science
- American History
- Creative Arts (Fine Arts)
- Language, Philosophy, and Culture (Humanities)

Select two of the following:

- Government/Political Science
- American History

Select one of the following:

- Creative Arts (Fine Arts)
- Language, Philosophy, and Culture (Humanities)

### Creative Arts (Fine Arts)

Select one of the following:

- ARTS 1301 Art Appreciation
- ARTS 1303 Art History I (Prehistoric to the 14th century)
- ARTS 1304 Art History II (14th century to the present)
- DANC 2303 Dance Appreciation
- DRAM 1310 Introduction to Theater
- DRAM 2366 Introduction to Cinema: Film Appreciation I
- MUSI 1306 Music Appreciation
- MUSI 1307 Music Literature
- MUSI 1310 American Music

### American History

Select two of the following:

- HIST 1301 United States History I
- HIST 1302 United States History II
- HIST 2301 Texas History
- HIST 2327 Mexican American History I
- HIST 2328 Mexican American History II

### Government/Political Science

Select two of the following:

- GOVT 2305 Federal Government (Federal Constitution and Topics) 6
- GOVT 2306 Texas Government (Texas Constitution and Topics) 6

### Social and Behavioral Sciences

Select one of the following:

- ANTH 2302 Introduction to Archaeology
- ANTH 2346 General Anthropology
- ANTH 2351 Cultural Anthropology
- ECON 2301 Principles of Macroeconomics
- ECON 2302 Principles of Microeconomics
- GEOG 1303 World Regional Geography
- GOVT 2304 Introduction to Political Science
- HIST 2311 Western Civilization I
- HIST 2312 Western Civilization II

### Component Area Option

The Component Area Option includes the courses listed below as well as all other courses listed in the Core Curriculum that have not been used to fulfill a previous area of the Core. Select 6 semester credit hours (SCH) to fulfill this component.

- SPCH 1311 Introduction to Speech Communication
- SPCH 1315 Public Speaking
- SPCH 1318 Interpersonal Communication
- SPCH 1321 Business and Professional Speech
- PHED 1164 Introduction to Physical Fitness and Wellness
- CHIN 1411 Beginning Chinese I
- CHIN 1412 Beginning Chinese II
- FREN 1411 Beginning French I
- FREN 1412 Beginning French II
- GERM 1411 Beginning German I
- GERM 1412 Beginning German II
- SGNL 1401 Beginning American Sign Language I
- SGNL 1402 Beginning American Sign Language II
- SPAN 1411 Beginning Spanish I
- SPAN 1412 Beginning Spanish II

### Total Credits

48

1. MATH 1324 Mathematics for Business and Social Sciences, MATH 1325 Calculus for Business and Social Sciences, and MATH 1332 Contemporary Mathematics (Quantitative Reasoning) are not recommended for students pursuing mathematics or science.
2. MATH 1342 is required for a bachelor's degree in nursing.
3. Students must be simultaneously co-enrolled in the co-requisite science lab.
4. BIOL 1308 Biology for Non-Science Majors I (lecture), BIOL 1309 Biology for Non-Science Majors II (lecture) and CHEM 1305 Introductory Chemistry I (lecture), and GEOL 1301 Earth Sciences for Non-Science Majors I (lecture) do not meet the requirements for science majors.
5. BIOL 2301 Human Anatomy and Physiology I (lecture) and BIOL 2302 Human Anatomy and Physiology II (lecture) are designed for allied health majors and not for academic transfer as science majors.
6. 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.
7. 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 plan core curriculum courses that would meet baccalaureate degree requirements at the four-year institution.
Interior Design, Associate of Applied Science

Program Information
Do you have an eye for design? Does an empty room set your imagination on fire? If so, an Interior Design degree from San Jacinto College may be just the thing to kick-start your career. Homeowners, architects, and businesses are putting more emphasis on quality interior design than ever before. Our program will prepare you for the creative, technical, and business sides of the interior design business. As a student pursing an interior design degree, you will plan and design residential and commercial interiors, explore and research problem-solving techniques, create and give presentations, and learn how to run a successful interior design business.

The San Jacinto College interior design 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;
• Offers hands-on training with commercial and residential interiors by preparing presentations and learning business procedures used by interior designers; and
• Includes five terms of study in interior design and related courses. Upon completion of the required 60 (effective fall 2014) semester credit hours, the student may file for an Associate of Applied Science (AAS) degree.

Additional Information
Students may continue their study to complete the 12 semester credit hours in the third year of the program and receive the Enhanced Skills Certificate in interior design. See the San Jacinto College catalog for additional certificates and details.

Career Opportunities
Through the year 2014, the Gulf Coast Region is forecasted to generate a total of 296 new interior design jobs.

Students graduating with a degree in interior design pursue careers as:

• Ceramic tile, accessory, furniture, or textile designers,
• AutoCAD draftspersons,
• Freelance writer for interior design publications/ newspapers,
• Product researcher,
• Facilities manager,
• In-house designer for government agencies, hospitals, and colleges,
• Residential or Commercial designer,
• Manufacturers representative,
• Retail buyer for design related products, and
• Showroom representative.

Earning Potential
Interior Designer Median Salary: $50,599

For more information contact one of the following:
281-998-6150, x1473 or email David.Vanover@sjcd.edu
281-991-2608 or email Kay.Richardson@sjcd.edu

Campus
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 Associate of Applied Science (AAS) degree is offered over a five-semester period, which includes one summer term. The curriculum provides a balance of technical, creative, and business training necessary for a career in interior design.

Note: Students who begin their interior design education after Sept 1, 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 four-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 two-year institution can apply for certification by NCIDQ (National Council for Interior Design Qualifications) to be NCIDQ certified with a two-year degree and 5,280 hours of qualified interior design coursework. Please see NCIDQ’s website for details www.ncidq.org.

Plan of Study
Central Campus
3INT-DSGN

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<thead>
<tr>
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<tr>
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<td>INDS 1311</td>
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<td>INDS 1319</td>
<td>Technical Drawing for Interior Designers</td>
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<td>INDS 1351</td>
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<td>INDS 2307</td>
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San Jacinto College 2019-2020
ENGL 1301  Composition I  3

Credits  15

Second Term
INDS 1315  Materials, Methods and Estimating  3
INDS 1349  Fundamentals of Space Planning  3
INDS 1352  History of Interiors II  3
DFTG 1409  Basic Computer-Aided Drafting  4

Credits  13

Summer Year One Term
MATH 1332  Contemporary Mathematics (Quantitative Reasoning) (or higher)
or MATH 1314  College Algebra  3
Speech  3

Credits  6

Third Term
INDS 1345  Commercial Design I  3
INDS 2313  Residential Design I  3
INDS 2321  Presentation Drawing  3
Social and Behavioral Sciences or Government/Political Science or American History  3

Credits  12

Fourth Term
INDS 2237  Portfolio Presentation  2
INDS 2325  Professional Practices for Interior Design  3
INDS 2335  Residential Design II  3
INDS 2386  Internship-Interior Design  3
Art  3

Credits  14

Total Credits  60

Capstone Experience: IND 2386 Internship-Interior Design

Program Information
Do you have an eye for design? Does an empty room set your imagination on fire? If so, an Interior Design degree from San Jacinto College may be just the thing to kick-start your career. Homeowners, architects, and businesses are putting more emphasis on quality interior design than ever before. Our program will prepare you for the creative, technical, and business sides of the interior design business. As a student pursuing an interior design degree, you will plan and design residential and commercial interiors, explore and research problem-solving techniques, create and give presentations, and learn how to run a successful interior design business.

The San Jacinto College interior design 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;
- Offers hands-on training with commercial and residential interiors by preparing presentations and learning business procedures used by interior designers; and
- Includes five terms of study in interior design and related courses.

Upon completion of the required 60 (effective fall 2014) semester credit hours, the student may file for an Associate of Applied Science (AAS) degree.

Additional Information
Students may continue their study to complete the 12 semester credit hours in the third year of the program and receive the Enhanced Skills Certificate in interior design. See the San Jacinto College catalog for additional certificates and details.

Career Opportunities

Through the year 2014, the Gulf Coast Region is forecasted to generate a total of 296 new interior design jobs.

Students graduating with a degree in interior design pursue careers as:

- Ceramic tile, accessory, furniture, or textile designers,
- AutoCAD draftspersons,
- Freelance writer for interior design publications/newspapers,
- Product researcher,
- Facilities manager,
- In-house designer for government agencies, hospitals, and colleges,
- Residential or Commercial designer,
- Manufacturers representative,
- Retail buyer for design related products, and
- Showroom representative.

Earning Potential

Interior Designer Median Salary: $50,599

1 Source: www.texaswages.com (http://www.texaswages.com), 2017

For more information contact one of the following:

281-998-6150, x1473 or email David.Vanover@sjcd.edu
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.

### Plan of Study

**Central Campus**

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<tr>
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<td>DFTG 1409</td>
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**Capstone Experience:** IND 2313 Residential Design I

### Program Information

If you have an ear for perfection, San Jacinto College can help you get started down the road to a career as a recording or sound reinforcement engineer. Musicians, singers, actors, announcers, and public speakers spend their entire careers trying to sound their best, and audio engineers are their most important allies in accomplishing this goal. San Jacinto College gives you hands-on training in recording, mixing, and special effects processing, along with a curriculum of music instruction. Master your skills here, and you’ll go far!

The San Jacinto College audio engineering curriculum:

- Is designed for students seeking careers as sound recording or sound reinforcement engineers;
- Emphasizes the theory and hands-on application of recording, mixing, and effects-processing equipment; and
- Requires musical proficiency and an understanding of business and music business systems.

### Additional Information

San Jacinto College offers an Associate of Applied Science in Music Recording or Live Sound Reinforcement (p. 21), a Certificate of Technology in Techniques of Audio Engineering (p. 24), and an Occupational Certificate in Sound Recording (p. 23).

Graduates of this program have become professionals working in:

- Recording studios,
- Television and radio stations,
- Convention centers and event venues,
- Hotels, and
- Churches.

### Earning Potential

Broadcast Technician Median Salary: $36,990

Sound Engineering Technician Median Salary: $39,120

Source: texawages.com (http://texaswages.com), Gulf Coast region, 2017

For more information contact Lynne Brandt (lynee.brandt@sjcd.edu), Department Chair, 281-476-1831.
Campuses
Central Campus

Information
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.

Plan of Study
Central Campus
3MUS-RCRD (https://publications.sanjac.edu/areas-study/arts-humanities-communications-design/music-recording-aas/music-recording-aas_Degree_Plan_Catalog_19-20.pdf)

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Capstone Experience: MUSC 2386 Internship - Recording Arts Technology/Technician

Verification of workplace competencies.

¹ Subject to placement testing, a student placing out of MUSI 1303 Fundamentals of Music may take MUSI 1311 Music Theory I and MUSI 1116 Sight Singing and Ear Training I during the first year and substitute a three-hour elective for MUSI 1303 Fundamentals of Music.

² 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 Music Literature for MUSI 1306 Music Appreciation.

Music, Associate of Arts in Music

Follow Your Calling
Do you have a passion for music? San Jacinto College is an outstanding place to begin your musical studies towards a rewarding career. Our program pairs general academic instruction with a wide array of music courses including music theory, ear training and sight singing, composition, ensembles, and immersion in specific instruments, voice, and musical genres. A music degree will prepare you for transfer to a baccalaureate-level music program – including a bachelor of music education.

The San Jacinto College music program:
• provides a balanced blend of courses including music theory, ear training and sight singing, composition, ensembles, piano, vocal training, and instrument specific immersion.
• offers spacious studios and a state-of-the-art theater to support a vibrant environment conducive to collaborative endeavors among faculty and students who share a passion for music.
• is dedicated to helping students experience technical mastery, develop critical and creative thinking skills.

Career Opportunities
Graduates of this program have become professional:
• Performers
• Teachers
• Music therapists
• Researchers
• Writers

Earning Potential
• Music educator (middle school) - $61,954*
• Music educator (secondary) - $61,844*
• Music educator (post-secondary) - $72,114*
• Music directors and composers - $55,221*

*Source: www.texaswages.com, Gulf Coast Region, 2017

Visit the Music and Audio Engineering Website

Location
Central, North

Information
• Lynne Brandt (lynne.brandt@sjcd.edu), Department Chair Central campus 281.476.1831
• Randy Snyder (randy.snyder@sjcd.edu), Department Chair North campus 281.998.6150, x7228
• Degree Plan (p. 22)

The Texas Higher Education Coordinating Board (THECB) 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.

The College designed the AA in Music to apply to Bachelor of Music (BM), Bachelor of Arts (BA), Bachelor of Music Education (BME), or other baccalaureate-level music degrees as deemed appropriate by the awarding institution.

1MUSIC (https://publications.sanjac.edu/areas-study/arts-humanities-communications-design/music-aa/music-aa_Degree_Plan_Catalog_19-20.pdf)

Courses in the field of study for music include the following:

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1If music fundamental class 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.

2Private 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. Keyboard (piano) competency is a requirement for most baccalaureate degrees.
Music, Sound Recording, Occupational Certificate

Program Information
If you have an ear for perfection, San Jacinto College can help you get started down the road to a career as a recording or sound reinforcement engineer. Musicians, singers, actors, announcers, and public speakers spend their entire careers trying to sound their best, and audio engineers are their most important allies in accomplishing this goal. San Jacinto College gives you hands-on training in recording, mixing, and special effects processing, along with a curriculum of music instruction. Master your skills here, and you'll go far!

The San Jacinto College audio engineering curriculum:

• Is designed for students seeking careers as sound recording or sound reinforcement engineers;
• Emphasizes the theory and hands-on application of recording, mixing, and effects-processing equipment; and
• Requires musical proficiency and an understanding of business and music business systems.

Additional Information
San Jacinto College offers an Associate of Applied Science in Music Recording or Live Sound Reinforcement (p. 21), a Certificate of Technology in Techniques of Audio Engineering (p. 24), and an Occupational Certificate in Sound Recording (p. 23).

Graduates of this program have become professionals working in:

• Recording studios,
• Television and radio stations,
• Convention centers and event venues,
• Hotels, and
• Churches.

Earning Potential
Broadcast Technician Median Salary: $36,990 ¹
Sound Engineering Technician Median Salary: $39,120 ¹

¹ Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information contact Lynne Brandt (lynne.brandt@sjcd.edu), Department Chair, 281-476-1831.
Music, Techniques of Audio Engineering, Certificate of Technology

Program Information
If you have an ear for perfection, San Jacinto College can help you get started down the road to a career as a recording or sound reinforcement engineer. Musicians, singers, actors, announcers, and public speakers spend their entire careers trying to sound their best, and audio engineers are their most important allies in accomplishing this goal. San Jacinto College gives you hands-on training in recording, mixing, and special effects processing, along with a curriculum of music instruction. Master your skills here, and you’ll go far!

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Graduates of this program have become professionals working in:

- Recording studios,
- Television and radio stations,
- Convention centers and event venues,
- Hotels, and
- Churches.

Earning Potential
Broadcast Technician Median Salary: $36,990

Sound Engineering Technician Median Salary: $39,120

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information contact Lynne Brandt (lynee.brandt@sjcd.edu), Department Chair, 281-476-1831.

Campuses
Central Campus

Information
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.

Plan of Study
Central Campus

4MUS-AUDI (https://publications.sanjac.edu/areas-study/arts-humanities-communications-design/music-techniques-audio-engineering-certificate-technology/music-techniques-audio-engineering-certificate-technology_Degree_Plan_Catalog_19-20.pdf)

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<td>Fourth Term</td>
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<tr>
<td>MUSC 2386</td>
<td>Internship-Recording Arts Technology/Technician</td>
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<tr>
<td>MUSC 2101</td>
<td>Audio Engineering Practices</td>
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<td>MUSC 2447</td>
<td>Audio Engineering III</td>
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<tr>
<td>or MUSC 2403</td>
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**Capstone Experience:** MUSC 2386 Internship-Recording Arts Technology/Technician

Verification of workplace competencies.
BUSINESS

• Accounting, Associate of Applied Science
• Accounting, Level 2 Certificate
• Business Management - Entrepreneur, Associate of Applied Science
• Business Management - Entrepreneur, Certificate of Technology
• Business Management - Entrepreneurship, Level 2 Certificate
• Business Management - Retail Management, Certificate of Technology
• Business Management, Associate of Applied Science
• Business Management, Level 2 Certificate
• Business Management, Occupational Certificate
• Business Marketing Foundations of Marketing Specialty, Occupational Certificate
• Business Office Systems and Support (BOSS), Administrative Assistant, Certificate of Technology
• Business Office Systems and Support (BOSS), Executive Administrative Assistant, Associate of Applied Science
• Business Office Systems and Support (BOSS), Executive Administrative Assistant, Level 2 Certificate
• Business Office Systems and Support (BOSS), Medical Office Support, Enhanced Skills Certificate
• Business Office Systems and Support (BOSS), Office Assistant, Occupational Certificate
• Business, Associate of Arts
• Business, Management Specialty, Certificate of Technology
• Global Logistics and Supply Chain Management, Associate of Applied Science
• Global Logistics and Supply Chain Management, Certificate of Technology
• Long Term Care Administration, Advanced Technical Certificate
• Paralegal, Associate of Applied Science
• Real Estate Advanced, Level 2 Certificate
• Real Estate, Associate of Applied Science
• Real Estate, Certificate of Technology
• Real Estate, Occupational Certificate

Accounting, Associate of Applied Science

Program Information
Accounting has become one of the most prominent themes in business. Changing regulations, compliance initiatives and increasing corporate complexity have brought accounting professionals to the forefront of business and government. Our graduates have gone on to start successful bookkeeping and income tax businesses. You can also use this degree to kick-start your interest in pursuing accounting at a four-year university.

The San Jacinto College Accounting Program:
• Prepares students to work in accounts payable, accounts receivable, payroll and banking in any number of companies and organizations
• Opens students to careers in non-business fields such as government officials and the legal profession

*Please note, however, that the AAS degree is not designed to completely transfer to a four-year university. For more information, students may consult an educational planner/counselor or Department Chair.

Career Opportunities
Upon completion of this degree, students should be able to find entry-level employment in:
• Accounts Payable,
• Accounts Receivable,
• Payroll,
• Banking,
• Bookkeeping, and
• Income Tax Accounting.

Earning Potential
Bookkeeping, Accounting, and Auditing Clerk median salary: $40,746 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact Central campus at 281-476-1841; North campus at 281-998-6150, x7306.

Campuses
Central Campus
North Campus
Information
The two-year technical Accounting Program is for individuals preparing for immediate entry into the accounting field. Students pursuing a bachelor's degree in accounting should refer to the information about the Associate of Arts (AA) degree in the catalog and see a counselor prior to registration.

Plan of Study
Central and North Campuses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ACCT 2301</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSI 1301</td>
<td>Business Principles</td>
<td>3</td>
</tr>
<tr>
<td>ACNT 1329</td>
<td>Payroll and Business Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACNT 1311</td>
<td>Introduction to Computerized Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BCIS 1305</td>
<td>Business Computer Applications</td>
<td>3</td>
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<td><strong>Credits</strong></td>
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<td>ACCT 2302</td>
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<td>3</td>
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<tr>
<td>ACNT 1331</td>
<td>Federal Income Tax: Individual</td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>BUSI 2301</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>Speech</td>
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<td><strong>Credits</strong></td>
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<tr>
<td><strong>Third Term</strong></td>
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<td>ACNT 2345</td>
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<td>ACNT 2303</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
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<td>ACNT 2309</td>
<td>Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACNT 1313</td>
<td>Computerized Accounting Applications</td>
<td>3</td>
</tr>
<tr>
<td>ACNT 2366</td>
<td>Practicum (or Field Experience) - Accounting</td>
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<td><strong>Credits</strong></td>
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<tr>
<td><strong>Fourth Term</strong></td>
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<tr>
<td>ACNT 2304</td>
<td>Intermediate Accounting II</td>
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<td>Economics or Psychology or Sociology</td>
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<td>MATH 1332 or MATH 1314</td>
<td>Contemporary Mathematics (Quantitative Reasoning) or College Algebra</td>
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<td>ACNT 2302</td>
<td>Accounting Capstone</td>
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Program Information
Accounting has become one of the most prominent themes in business. Changing regulations, compliance initiatives and increasing corporate complexity have brought accounting professionals to the forefront of business and government. Our graduates have gone on to start successful bookkeeping and income tax businesses. You can also use this degree to kick-start your interest in pursuing accounting at a four-year university.

The San Jacinto College Accounting Program:
• Prepares students to work in accounts payable, accounts receivable, payroll and banking in any number of companies and organizations
• Opens students to careers in non-business fields such as government officials and the legal profession

*Please note, however, that the AAS degree is not designed to completely transfer to a four-year university. For more information, students may consult an educational planner/counselor or Department Chair.

Career Opportunities
Upon completion of this degree, students should be able to find entry-level employment in:
• Accounts Payable,
• Accounts Receivable,
• Payroll,
• Banking,
• Bookkeeping, and
• Income Tax Accounting.

Earning Potential
Bookkeeping, Accounting, and Auditing Clerk median salary: $40,746 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact Central campus at 281-476-1841; North campus at 281-998-6150, x7306.

Campuses
Central Campus
North Campus

Verification of workplace competencies
Capstone Experience: ACNT 2302 Accounting Capstone
Information

The two-year technical Accounting Program is for individuals preparing for immediate entry into the accounting field. Students pursuing a bachelor’s degree in accounting should refer to the information about the Associate of Arts (AA) degree in the catalog and see a counselor prior to registration.

Level 2 Certificate

The Accounting Level 2 Certificate provides specialized accounting courses 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 (AAS) degree in Accounting.

Plan of Study

Central and North Campuses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>ACCT 2301</td>
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<td>ACNT 1329</td>
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<td>BCIS 1305</td>
<td>Business Computer Applications</td>
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<tr>
<td>BUSI 1301</td>
<td>Business Principles</td>
<td>3</td>
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<td><strong>Second Term</strong></td>
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<tr>
<td>ACCT 2302</td>
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<td>ACNT 1331</td>
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<td>Business Law</td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>Speech</td>
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<tr>
<td><strong>Third Term</strong></td>
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<tr>
<td>ACCT 2303</td>
<td>Intermediate Accounting I</td>
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</tr>
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<td>ACNT 2345</td>
<td>Technical Writing for Accountants</td>
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<td>Practicum (or Field Experience) - Accounting</td>
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Capstone Experience: ACNT 2366 Practicum (or Field Experience) - Accounting

Business Management - Entrepreneur, Associate of Applied Science

Program Information

Shifting economic conditions, breakthrough technologies, and a highly opportunistic business environment have led to a vast resurgence of the startup business. Entrepreneurs abound, and those with the most well-rounded business management skills are best poised for success. At San Jacinto College, you will learn principles vital to the formation, organization, leadership, and control of your own business, such as market analysis, problem solving, planning, staffing, purchasing, marketing, communication, and workforce management. At San Jacinto College, you will write a business plan and develop tactics for putting your plan into action at your own company.

The San Jacinto College Small Business Entrepreneurship Program:

- Helps students develop leadership and management skills by providing a basis in analysis and problem solving and an understanding of managing human behavior and resources;
- Places an emphasis on planning, organizing, staffing, and leading through effective communication techniques for roles in purchasing, production control, and marketing; and
- Covers leadership, ethics, and organizational development and helps to focus your thinking about successful methods for operating your business.

Career Opportunities

Graduates of this program are prepared to start their own business of almost any type, such as retail, wholesale, and manufacturing. In addition to preparing the individual for entry into company ownership, the program can enhance the skills of those who are already in business for themselves but wish to increase their knowledge and effectiveness in operating their own companies.

For more information, please contact 281-998-6150.

Campus(es)

Central Campus
North Campus
South Campus

Information

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 (AAS) in
San Jacinto College

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 that 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 Cooperative Education BMGT 2382 Cooperative Education - Business Administration and Management, General course should be counseled by a business management coordinator or the Department Chair prior to registration. BMGT 2382 Cooperative Education - Business Administration and Management, General cooperative education course helps the student receive practical training and experience compatible with his or her management career objectives.

Associate of Applied Science Degree

The Business Management Entrepreneur Associate of Applied Science (AAS) is suitable for anyone who desires to own or manage a small business. An advisory committee of small business owners has recommended this two-year degree program. Students pursuing a bachelor's degree should see a counselor or the business Department Chair prior to registration.

Plan of Study

All Campuses
3BMGT-ENTR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>First Term</td>
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<tr>
<td>ACNT 1303</td>
<td>Introduction to Accounting I</td>
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<tr>
<td>BCIS 1305</td>
<td>Business Computer Applications</td>
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<td>BMGT 1305</td>
<td>Communications in Management</td>
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<td>BMGT 1327</td>
<td>Principles of Management</td>
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<td>HRPO 1311</td>
<td>Human Relations</td>
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<td>Credits</td>
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| Second Term     |                                   |         |
| ACNT 1311 | Introduction to Computerized Accounting | 3       |
| BUSG 2309 | Small Business Management           | 3       |

Third Term

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<td>MRKG 2312</td>
<td>E-Commerce Marketing</td>
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<td>BMGT 2382</td>
<td>Cooperative Education - Business Administration and Management, General</td>
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<td>BMGT 2309</td>
<td>Leadership</td>
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<td>BUSG 1341</td>
<td>Small Business Financing</td>
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Fourth Term

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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>MATH 1332 or MATH 1314</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher)</td>
<td>3</td>
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<tr>
<td>ECON 2302 or PSYC 2301</td>
<td>Principles of Microeconomics or General Psychology</td>
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<td>SPCH 1321</td>
<td>Business and Professional Speech</td>
<td>3</td>
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<td>ARTS 1301</td>
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<td>MUSI 1306</td>
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<td>PHIL 1301</td>
<td>Introduction to Philosophy</td>
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</table>

Total Credits 60

Capstone Experience: BMGT 2382 Cooperative Education - Business Administration and Management, General

Note: Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.

Business Management - Entrepreneur, Certificate of Technology

Program Information

Shifting economic conditions, breakthrough technologies, and a highly opportunistic business environment have led to a vast resurgence of the startup business. Entrepreneurs abound, and those with the most well-rounded business management skills are best poised for
success. At San Jacinto College, you will learn principles vital to the formation, organization, leadership, and control of your own business, such as market analysis, problem solving, planning, staffing, purchasing, marketing, communication, and workforce management. At San Jacinto College, you will write a business plan and develop tactics for putting your plan into action at your own company.

The San Jacinto College Small Business Entrepreneurship Program:

- Helps students develop leadership and management skills by providing a basis in analysis and problem solving and an understanding of managing human behavior and resources;
- Places an emphasis on planning, organizing, staffing, and leading through effective communication techniques for roles in purchasing, production control, and marketing; and
- Covers leadership, ethics, and organizational development and helps to focus your thinking about successful methods for operating your business.

**Career Opportunities**

Graduates of this program are prepared to start their own business of almost any type, such as retail, wholesale, and manufacturing. In addition to preparing the individual for entry into company ownership, the program can enhance the skills of those who are already in business for themselves but wish to increase their knowledge and effectiveness in operating their own companies.

For more information, please contact 281-998-6150.

**Campus(es)**

Central Campus  
North Campus  
South Campus

**Information**

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 (AAS) 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 that 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 Cooperative Education BMGT 2382 Cooperative Education - Business Administration and Management, General course should be counseled by a business management coordinator or the Department Chair prior to registration. BMGT 2382 Cooperative Education - Business Administration and Management, General cooperative education course helps the student receive practical training and experience compatible with his or her management career objectives.

**Certificate of Technology**

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.

**Plan of Study**

**All Campuses**  
4BMGT-ENTR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<td>Introduction to Accounting I</td>
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</tr>
<tr>
<td>BCIS 1305</td>
<td>Business Computer Applications</td>
<td>3</td>
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<tr>
<td>HRPO 1311</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>BMGT 1327</td>
<td>Principles of Management</td>
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<td><strong>Credits</strong></td>
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<tr>
<td>BUSG 2309</td>
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<td>HRPO 2303</td>
<td>Employment Practices</td>
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<td>BMGT 1344</td>
<td>Negotiations and Conflict Management</td>
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<td>Introduction to Computerized Accounting</td>
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<td>MRKG 2333</td>
<td>Principles of Selling</td>
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<tr>
<td></td>
<td><strong>Total Credits</strong></td>
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</tr>
</tbody>
</table>

**Capstone Experience:** BUSG 2309 Small Business Management

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San Jacinto College 2019-2020
Business Management - Entrepreneurship, Level 2 Certificate

Program Information
Shifting economic conditions, breakthrough technologies, and a highly opportunistic business environment have led to a vast resurgence of the startup business. Entrepreneurs abound, and those with the most well-rounded business management skills are best poised for success. At San Jacinto College, you will learn principles vital to the formation, organization, leadership, and control of your own business, such as market analysis, problem solving, planning, staffing, purchasing, marketing, communication, and workforce management. At San Jacinto College, you will write a business plan and develop tactics for putting your plan into action at your own company.

The San Jacinto College Small Business Entrepreneurship Program:

- Helps students develop leadership and management skills by providing a basis in analysis and problem solving and an understanding of managing human behavior and resources;
- Places an emphasis on planning, organizing, staffing, and leading through effective communication techniques for roles in purchasing, production control, and marketing; and
- Covers leadership, ethics, and organizational development and helps to focus your thinking about successful methods for operating your business.

Career Opportunities
Graduates of this program are prepared to start their own business of almost any type, such as retail, wholesale, and manufacturing. In addition to preparing the individual for entry into company ownership, the program can enhance the skills of those who are already in business for themselves but wish to increase their knowledge and effectiveness in operating their own companies.

For more information, please contact 281-998-6150.

Campus(es)
Central Campus
North Campus
South Campus

Information
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 (AAS) 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 that 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.

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Plan of Study
All Campuses
5BMGT-ENTR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Term</td>
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</tr>
<tr>
<td>BMGT 1327</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BCIS 1305</td>
<td>Business Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 1311</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>ACNT 1303</td>
<td>Introduction to Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BMGT 1305</td>
<td>Communications in Management</td>
<td>3</td>
</tr>
<tr>
<td>Second Term</td>
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<tr>
<td>BUSG 2309</td>
<td>Small Business Management</td>
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<tr>
<td>MRKG 2333</td>
<td>Principles of Selling</td>
<td>3</td>
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<tr>
<td>ACNT 1311</td>
<td>Introduction to Computerized Accounting</td>
<td>3</td>
</tr>
<tr>
<td>HRPO 2303</td>
<td>Employment Practices</td>
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BMGT 1344  Negotiations and Conflict Management  3

Credits  15

Third Term
ACNT 1329  Payroll and Business Tax Accounting  3
BMGT 2309  Leadership  3
BUSG 1341  Small Business Financing  3
MRKG 2312  E-Commerce Marketing  3
BMGT 2382  Cooperative Education - Business Administration and Management, General  3

Credits  15
Total Credits  45

Capstone Experience: BMGT 2382 Cooperative Education - Business Administration and Management, General

Business Management - Retail Management, Certificate of Technology

Program Information
The business environment is constantly changing; therefore, effective and efficient management requires learning and applying the latest techniques in management to advance your career and become a more valuable manager in the organization. As a graduate of the San Jacinto College business management program, you will be prepared to assume first-line supervisory positions in business organizations of every type. You will also be on a career track to higher levels of management as your experience grows in applying the concepts and techniques learned at San Jacinto College.

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- Places an emphasis on planning, organizing, staffing, and leading through effective communication techniques for roles in purchasing, production control, and marketing.

Course topics may include:

- Marketing
- Management
- Leadership
- Purchasing
- Selling
- Human Relations
- Human Resources
- Problem Solving
- Decision-Making

Career Opportunities
Graduates of this program are prepared to assume first-line supervisory positions in business organizations of every type including:

- Retail
- Wholesale
- Manufacturing
- Materials management
- Distribution
- Governmental agencies
- Nonprofits

Earning Potential
Earning potential varies based on industry. This is just an example of one industry's earning potential.

First-Line Supervisor in Retail Sales median salary: $40,952 per year


For more information, please contact 281-998-6150.

Campus(es)
Central Campus
North Campus
South Campus

Information
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 (AAS) 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.
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Certificate of Technology

The Retail Management Certificate of Technology program is designed for students who desire to work in leadership roles in the retail industry. This certificate is cross-walked with the retail industry recognized retail management industry certification. Most of the courses required for the Certificate of Technology apply toward an Associate of Applied Science (AAS) degree in Business Management.

Plan of Study

All Campuses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>First Term</td>
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<tr>
<td>HRPO 1311</td>
<td>Human Relations</td>
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<tr>
<td>BMGT 1327</td>
<td>Principles of Management</td>
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<td>MRKG 1311</td>
<td>Principles of Marketing</td>
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<tr>
<td>BCIS 1305</td>
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<td><strong>Credits</strong></td>
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<td>BMGT 1305</td>
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<td>ACNT 1303</td>
<td>Introduction to Accounting I</td>
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<td>MRKG 1302</td>
<td>Principles of Retailing</td>
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Capstone Experience: MRKG 1302 Principles of Retailing

Business Management, Associate of Applied Science

Program Information

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Course topics may include:

- Marketing
- Management
- Leadership
- Purchasing
- Selling
- Human Relations
- Human Resources
- Problem Solving
- Decision-Making

Career Opportunities

Graduates of this program are prepared to assume first-line supervisory positions in business organizations of every type including:

- Retail
- Wholesale
- Manufacturing
- Materials management
- Distribution
- Governmental agencies
- Nonprofits
Earning Potential

Earning potential varies based on industry. This is just an example of one industry's earning potential.

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Campus(es)

Central Campus
North Campus
South Campus

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Associate of Applied Science

The Associate of Applied Science (AAS) in Business Management is a two-year supervisory training program for people preparing for careers in business management. Students pursuing a bachelor's degree should see an educational planner/counselor or the Department Chair of the Business Administration Department prior to registration.

Plan of Study

All Campuses

3BMGT-MGMT

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>BMGT 1327</td>
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<tr>
<td>MRKG 1311</td>
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</tr>
<tr>
<td>Bcis 1305</td>
<td>Business Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>Hrpo 1311</td>
<td>Human Relations</td>
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</tr>
<tr>
<td>Acnt 1303</td>
<td>Introduction to Accounting I</td>
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Credits 15

Second Term

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<td>IBUS 2341</td>
<td>Intercultural Management</td>
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<td>BMGT 1309</td>
<td>Information and Project Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSI 2304</td>
<td>Business Communications</td>
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<tr>
<td>MRKG 2312</td>
<td>E-Commerce Marketing</td>
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<td>HRPO 2301</td>
<td>Human Resources Management</td>
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Credits 15

Third Term

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<td>BUSI 2301</td>
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<td>BMGT 2303</td>
<td>Problem Solving and Decision Making</td>
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<td>BMGT 1313</td>
<td>Principles of Purchasing</td>
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<td>BMGT 2382</td>
<td>Cooperative Education - Business Administration and Management, General</td>
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Credits 15

Fourth Term

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<tr>
<td>MATH 1332 or MATH 1314</td>
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<td>SPCH 1315 or SPCH 1321</td>
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<td>ENGL 1301</td>
<td>Composition I</td>
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<td>PSYC 2301 or ECON 2302</td>
<td>General Psychology or Principles of Microeconomics</td>
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<td>ARTS 1301</td>
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<td>MUSI 1306</td>
<td>Music Appreciation</td>
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<tr>
<td>PHIL 1301</td>
<td>Introduction to Philosophy</td>
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Credits 15

Total Credits 60

Capstone Experience: BMGT 2382 Cooperative Education - Business Administration and Management, General

1 Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.

San Jacinto College 2019-2020
Business Management, Level 2 Certificate

Program Information
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Course topics may include:
• Marketing
• Management
• Leadership
• Purchasing
• Selling
• Human Relations
• Human Resources
• Problem Solving
• Decision-Making

Career Opportunities
Graduates of this program are prepared to assume first-line supervisory positions in business organizations of every type including:
• Retail
• Wholesale
• Manufacturing
• Materials management
• Distribution
• Governmental agencies
• Nonprofits

Earning Potential
Earning potential varies based on industry. This is just an example of one industry's earning potential.

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Campus(es)
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North Campus
South Campus

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Plan of Study
All Campuses
**Course** | **Title** | **Credits**
--- | --- | ---
First Term | BMGT 1327 | Principles of Management | 3
| BCIS 1305 | Business Computer Applications | 3
| HRPO 1311 | Human Relations | 3
| ACNT 1303 | Introduction to Accounting I | 3
| MRKG 1311 | Principles of Marketing | 3

Credits | 15

Second Term | BUSI 2304 | Business Communications | 3
| HRPO 2301 | Human Resources Management | 3
| BMGT 1309 | Information and Project Management | 3
| IBUS 2341 | Intercultural Management | 3
| MRKG 2312 | E-Commerce Marketing | 3

Credits | 15

Third Term | BMGT 2382 | Cooperative Education - Business Administration and Management, General | 3
| BUSI 2301 | Business Law | 3
| BMGT 2309 | Leadership | 3
| BMGT 1313 | Principles of Purchasing | 3
| BMGT 2303 | Problem Solving and Decision Making | 3

Credits | 15

Total Credits | 45

**Capstone Experience**: BMGT 2382 Cooperative Education - Business Administration and Management, General

---

**Business Management, Occupational Certificate**

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- Selling
- Human Relations
- Human Resources
- Problem Solving
- Decision-Making

**Career Opportunities**

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- Wholesale
- Manufacturing
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1 Source: texasswages.com (http://texasswages.com), Gulf Coast region, 2017.

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**Campus(es)**

Central Campus
North Campus
South Campus

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Plan of Study

All Campuses

6BMGT-MGMT

Plan of Study Grid

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<thead>
<tr>
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<tr>
<td>BMGT 1327</td>
<td>Principles of Management</td>
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</tr>
<tr>
<td>MRKG 1311</td>
<td>Principles of Marketing</td>
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</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td>ACNT 1303</td>
<td>Introduction to Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>Credits</td>
<td></td>
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</tr>
<tr>
<td>Second Term</td>
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<td></td>
</tr>
<tr>
<td>BUSI 2304</td>
<td>Business Communications</td>
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</table>

Capstone Experience: HRPO 1311 Human Relations

Business Marketing Foundations of Marketing Specialty, Occupational Certificate

Program Information

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- Selling
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- Human Resources
- Problem Solving
- Decision-Making

Career Opportunities

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- Retail
- Wholesale
- Manufacturing
- Materials management
- Distribution
Earning Potential

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Campus(es)

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South Campus

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Plan of Study

All Campuses

6BMGT-MRKG

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>MRKG 2312</td>
<td>E-Commerce Marketing</td>
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Credits 15

Total Credits 15

Capstone Experience: MRKG 2312 E-Commerce Marketing

Business Office Systems and Support (BOSS), Administrative Assistant, Certificate of Technology

Program Information

Now more than ever, administrative assistants play an integral role in the success of an organization. They are highly valued, collaborative team members with a wide range of skills that enable them to work in a variety of industries. In the Business Office Systems and Support (BOSS) program, our students develop competencies in office procedures, software applications, accounting skills, organizational skills, office management, and project management, as well as in the essential workplace soft skills employers demand.

The San Jacinto College Business Office Systems and Support (BOSS) program:

- Provides graduates with the skills, knowledge, and training that will enable them to be successful in a business office environment;
- Offers courses in the latest office techniques, current technology, accounting terminology, financial document preparation, filing procedures, oral and written communication skills, and business forms preparation; and
- Ensures that students will be able to manage a variety of administrative duties such as planning meetings, scheduling
appointments, preparing reports, greeting visitors, and assuming responsibilities including organizing an office and resolving relational problems with people inside and outside the organization.

Career Opportunities

Graduates of the San Jacinto College BOSS program are employed in:

- Schools
- Hospitals
- Corporate Settings
- Government agencies

Graduate opportunities may also extend beyond this program with certification from the International Association of Administrative Professionals as a Certified Administrative Professional (CAP). Certification in this field usually leads to a higher salary.

Earning Potential

Executive Administrative Assistant - $61,846 per year


For more information, please contact Central campus, 281-476-1836; North campus, 281-998-6150, x7242; or South campus, 281-929-4603.

Campus(es)

Central Campus
North Campus
South Campus

Information

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Completion of the Office Assistant Occupational Certificate is the first step to take toward achieving your goal of having a fulfilling and challenging career in this field. Keyboarding proficiency is recommended for all the certificates as well as the degree in this program.

Certificate of Technology

These courses are required for the Administrative Assistant Certificate of Technology, and they also apply toward the level 2 certificate and the Associate of Applied Science (AAS) degree in the Business Office Systems and Support (BOSS) program.

Plan of Study

All Campuses
4BOAA

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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<tr>
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<td>POFI 1341</td>
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<tr>
<td>BUSI 2304</td>
<td>Business Communications</td>
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<tr>
<td>Total Credits</td>
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Capstone Experience: POFT 2301 Intermediate Keyboarding

Business, Associate of Arts

A Smart Business Choice

If your goal is to lead others in business, we can help provide you with the leadership skills you need. The San Jacinto College Business Administration Associate of Arts (AA) degree program teaches the latest advancements in effective management and develops your acumen in leadership, problem solving, communication, purchasing, planning, staffing, marketing, production control and resource optimization.

Upon graduation, students will be equipped to assume a first-line supervisory position in industries like retail, manufacturing, government, and nonprofit. The AA program also provides current business professionals the skills and competencies necessary for faster career advancement.

The AA degree program in business administration also provides students an industry-relevant foundation to four-year university bachelor's and master's business degree programs.

Career Opportunities

Students pursuing a bachelor's or master's degree pathway in business will be prepared for careers as:

- Budget Analysts $80,810*
- Compensation and Benefits Managers $127,737*
- Compliance Officers $83,361*

San Jacinto College 2019-2020
• Construction Managers $107,356*
• Credit Analysts $84,978*
• Financial Analysts $99,775*
• Human Resources Managers $145,121*
• Insurance Underwriters $66,514*

*Source: [www.texaswages.com](http://www.texaswages.com), 2017 annual median salaries for Gulf Coast region

For more information, please contact Central campus, 281-476-1836; North campus, 281-998-6150, x7242; or South campus, 281-929-4603.

**Campuses**

**Central Campus**

**North Campus**

**South Campus**

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 42-semester credit hour (SCH) core curriculum, the six-SCH institutional option, and a 12-hour transfer path, 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, Counseling, & Completion office on each 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 communications.

**All Campuses**

![Table](http://example.com/table.png)

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<thead>
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<td>PSYC 1300 Learning Framework</td>
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<td>BCIS 1305 Business Computer Applications</td>
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<td>ITSC 1309 Integrated Software Applications I</td>
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<tr>
<td></td>
<td>Academic elective (if student passes the computer literacy exam)</td>
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<td><strong>CORE CURRICULUM</strong></td>
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<td>Communications</td>
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**San Jacinto College 2019-2020**
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<tr>
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<td>HIST 2322</td>
<td>World Civilization II</td>
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<td>Introduction to the Humanities I</td>
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<td>Introduction to Philosophy</td>
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<td>Introduction to Ethics</td>
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<td>CHIN 1411</td>
<td>Beginning Chinese I</td>
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<td>CHIN 1412</td>
<td>Beginning Chinese II</td>
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<td>SGNL 1401</td>
<td>Beginning American Sign Language I</td>
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<td>SGNL 1402</td>
<td>Beginning American Sign Language II</td>
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<td>SPAN 1411</td>
<td>Beginning Spanish I</td>
</tr>
<tr>
<td>SPAN 1412</td>
<td>Beginning Spanish II</td>
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</table>

**Creative Arts (Fine Arts)**

Select one of the following: 3
- ARTS 1301  Art Appreciation
- ARTS 1303  Art History I (Prehistoric to the 14th century)
- ARTS 1304  Art History II (14th century to the present)
- DANC 2303  Dance Appreciation
- DRAM 1310  Introduction to Theater
- DRAM 2366  Introduction to Cinema: Film Appreciation I
- MUSI 1306  Music Appreciation
- MUSI 1307  Music Literature
- MUSI 1310  American Music

**American History**

Select two of the following: 6
- HIST 1301  United States History I
- HIST 1302  United States History II
- HIST 2301  Texas History
- HIST 2327  Mexican American History I
- HIST 2328  Mexican American History II

**Government/Political Science**

Select two of the following: 6
- GOVT 2305  Federal Government (Federal Constitution and Topics) 6
- GOVT 2306  Texas Government (Texas Constitution and Topics) 6

**Social and Behavioral Sciences**

Select one of the following: 3
- ANTH 2302  Introduction to Archaeology
- ANTH 2346  General Anthropology
- ANTH 2351  Cultural Anthropology
- ECON 2301  Principles of Macroeconomics
- ECON 2302  Principles of Microeconomics
- GEOG 1303  World Regional Geography
- GOVT 2304  Introduction to Political Science
- HIST 2311  Western Civilization I
- HIST 2312  Western Civilization II
- PSYC 2301  General Psychology
- SOCI 1301  Introduction to Sociology
- SOCI 2319  Minority Studies I

**Component Area Option**

The Component Area Option includes the courses listed below as well as all other courses listed in the Core Curriculum that have not been used to fulfill a previous area of the Core. Select 6 semester credit hours (SCH) to fulfill this component. 6
- SPCH 1311  Introduction to Speech Communication
- SPCH 1315  Public Speaking
- SPCH 1318  Interpersonal Communication
- SPCH 1321  Business and Professional Speech
- PHED 1164  Introduction to Physical Fitness and Wellness

**Total Credits**: 48

1. MATH 1324 Mathematics for Business and Social Sciences, MATH 1325 Calculus for Business and Social Sciences, and MATH 1332 Contemporary Mathematics (Quantitative Reasoning) are not recommended for students pursuing mathematics or science.
2. MATH 1342 is required for a bachelor's degree in nursing.
3. Students must be simultaneously co-enrolled in the co-requisite science lab.
4. BIOL 1308 Biology for Non-Science Majors I (lecture), BIOL 1309 Biology for Non-Science Majors II (lecture) and CHEM 1305 Introductory Chemistry I (lecture), and GEOL 1301 Earth Sciences for Non-Science Majors I (lecture) do not meet the requirements for science majors.
5. BIOL 2301 Human Anatomy and Physiology I (lecture) and BIOL 2302 Human Anatomy and Physiology II (lecture) are designed for allied health majors and not for academic transfer as science majors.
6. 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.
7. 2 SCH in this option may include the labs for science courses.

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 plan core curriculum courses that would meet baccalaureate degree requirements at the four-year institution.
Business Office Systems and Support (BOSS), Executive Administrative Assistant, Associate of Applied Science

Program Information

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Earning Potential

Executive Administrative Assistant - $61,846 per year


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Campus(es)

Central Campus
North Campus
South Campus

Information

Completion of the Office Assistant Occupational Certificate is the first step to take toward achieving your goal of having a fulfilling and challenging career in this field. Keyboarding proficiency is recommended for all the certificates as well as the degree in this program.

Associate of Applied Science

This two-year Executive Administrative Assistant Associate of Applied Science (AAS) degree provides the most in-depth preparation for employment as a professional in the administrative assistant field. Students desiring a baccalaureate degree should see an advisor or the department chair of the program prior to registration.

Plan of Study

<table>
<thead>
<tr>
<th>All Campuses</th>
<th>3BOFT-EXE</th>
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</thead>
<tbody>
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</tr>
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<td>First Term</td>
<td></td>
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<tr>
<td>POFT 1319</td>
<td>Records and Information Management I</td>
</tr>
<tr>
<td>Credits</td>
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<tr>
<td>Second Term</td>
<td></td>
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<tr>
<td>POFT 1325</td>
<td>Business Math Using Technology</td>
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<td>BUSI 2304</td>
<td>Business Communications</td>
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San Jacinto College 2019-2020
POFT 2301  Intermediate Keyboarding  3

Credits  15

**Third Term**

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<tr>
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<tbody>
<tr>
<td>BUSI 1301</td>
<td>Business Principles</td>
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<tr>
<td>MATH 1332 or MATH 1314</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher)</td>
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<tr>
<td></td>
<td>or College Algebra</td>
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<td>HRPO 1311</td>
<td>Human Relations</td>
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<tr>
<td>BMGT 1309</td>
<td>Information and Project Management</td>
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<tr>
<td>POFT 2364 or POFT 1313</td>
<td>Practicum (or Field Experience) - Administrative Assistant and Secretarial Science, General</td>
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Credits  15

**Fourth Term**

<table>
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<th>Course Title</th>
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<tr>
<td>Psychology or Sociology ²</td>
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<td>BMGT 1325</td>
<td>Office Management</td>
<td>3</td>
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<td>Select one of the following:</td>
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<td>SPCH 1315</td>
<td>Public Speaking</td>
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<tr>
<td>SPCH 1318</td>
<td>Interpersonal Communication</td>
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<td>SPCH 1321</td>
<td>Business and Professional Speech</td>
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</tr>
<tr>
<td>Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)</td>
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</tbody>
</table>

Credits  15

Total Credits  60

**Capstone Experience:** POFT 2364 Practicum or POFT 1313 Professional Workforce Preparation

¹ Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.

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**Program Information**

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- Corporate Settings
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**Level 2 Certificate**

These courses are required for the Executive Administrative Assistant Level 2 Certificate, and they also apply toward the Associate of Applied Science (AAS) degree in the Business Office Systems and Support (BOSS) program.

**Plan of Study**

All Campuses

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<td>BUSI 1301</td>
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**Total Credits**: 45

**Program Information**

The business environment is constantly changing; therefore, effective and efficient management requires learning and applying the latest techniques in management to advance your career and become a more valuable manager in the organization. As a graduate of the San Jacinto College business management program, you will be prepared to assume first-line supervisory positions in business organizations of every type. You will also be on a career track to higher levels of management as your experience grows in applying the concepts and techniques learned at San Jacinto College.

The San Jacinto College Business Management program:

- Helps students develop leadership and management skills by providing a basis in analysis and problem solving and an understanding of managing human behavior and resources; and
- Places an emphasis on planning, organizing, staffing, and leading through effective communication techniques for roles in purchasing, production control, and marketing.

**Course topics may include:**

- Marketing
- Management
- Leadership
- Purchasing
- Selling
- Human Relations
- Human Resources
- Problem Solving
- Decision-Making

**Career Opportunities**

Graduates of this program are prepared to assume first-line supervisory positions in business organizations of every type including:

- Retail
- Wholesale
- Manufacturing
- Materials management
- Distribution
- Governmental agencies
- Nonprofits
**Earning Potential**

Earning potential varies based on industry. This is just an example of one industry’s earning potential.

First-Line Supervisor in Retail Sales median salary: $40,952 per year\(^1\)

\(^1\) Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017.

For more information, please contact Central, 281-476-1841; North, 281-998-6150, x7765; and South, 281-929-4603.

**Campus(es)**

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South Campus

**Information**

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 (AAS) 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 that 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.

**Certificate of Technology**

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 (AAS) degree in Business Management.

**Plan of Study**

**All Campuses**

4BMGT-MGMT

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<thead>
<tr>
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<td>HRPO 1311</td>
<td>Human Relations</td>
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<td>Principles of Marketing</td>
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<td>Introduction to Accounting I</td>
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**Business Office Systems and Support (BOSS), Medical Office Support, Enhanced Skills Certificate**

**Program Information**

Now more than ever, administrative assistants play an integral role in the success of an organization. They are highly valued, collaborative team members with a wide range of skills that enable them to work in a variety of industries. In the Business Office Systems and Support (BOSS) program, our students develop competencies in office procedures, software applications, accounting skills, organizational skills, office
management, and project management, as well as in the essential workplace soft skills employers demand.

The San Jacinto College Business Office Systems and Support (BOSS) program:

- Provides graduates with the skills, knowledge, and training that will enable them to be successful in a business office environment;
- Offers courses in the latest office techniques, current technology, accounting terminology, financial document preparation, filing procedures, oral and written communication skills, and business forms preparation; and
- Ensures that students will be able to manage a variety of administrative duties such as planning meetings, scheduling appointments, preparing reports, greeting visitors, and assuming responsibilities including organizing an office and resolving relational problems with people inside and outside the organization.

Career Opportunities

Graduates of the San Jacinto College BOSS program are employed in:

- Schools
- Hospitals
- Corporate Settings
- Government agencies

Graduate opportunities may also extend beyond this program with certification from the International Association of Administrative Professionals as a Certified Administrative Professional (CAP). Certification in this field usually leads to a higher salary.

Earning Potential

Executive Administrative Assistant - $61,846 per year


For more information, please contact Central campus, 281-476-1836;
North campus, 281-998-6150, x7242; or South campus, 281-929-4603.

Campus(es)

Central Campus
North Campus
South Campus

Information

Now more than ever, administrative assistants play an integral role in the success of an organization. They are highly valued, collaborative team members with a wide range of skills which enable them to work in a variety of industries. In the Business Office Systems and Support (BOSS) program, our students develop competencies in office procedures, software applications, accounting skills, organizational skills, office management, and project management, as well as in the essential workplace soft skills employers demand.

Completion of the Office Assistant Occupational Certificate is the first step to take toward achieving your goal of having a fulfilling and challenging career in this field. Keyboarding proficiency is recommended for all the certificates as well as the degree in this program.

Enhanced Skills Certificate

The Medical Office Support Enhanced Skills Certificate is designed for students who have completed the Executive Administrative Assistant Associate of Applied Science (AAS) degree. This certificate is intended to prepare students for entry-level positions in medical office administrative/billing positions.

Plan of Study

All Campuses
EBOTM

Please see Executive Administrative Assistant, Associate of Applied Science (AAS) page for more information.

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<thead>
<tr>
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<td>HPRS 2302 Medical Terminology for Allied Health</td>
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<td>MRMT 1307 Medical Transcription I</td>
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<td>POFM 1327/ MDCA 1343 Medical Insurance</td>
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Capstone Experience: POFM 1317 Medical Administrative Support

Business Office Systems and Support (BOSS), Office Assistant, Occupational Certificate

Program Information

Now more than ever, administrative assistants play an integral role in the success of an organization. They are highly valued, collaborative team members with a wide range of skills that enable them to work in a variety of industries. In the Business Office Systems and Support (BOSS) program, our students develop competencies in office procedures, software applications, accounting skills, organizational skills, office management, and project management, as well as in the essential workplace soft skills employers demand.
The San Jacinto College Business Office Systems and Support (BOSS) program:

• Provides graduates with the skills, knowledge, and training that will enable them to be successful in a business office environment;
• Offers courses in the latest office techniques, current technology, accounting terminology, financial document preparation, filing procedures, oral and written communication skills, and business forms preparation; and
• Ensures that students will be able to manage a variety of administrative duties such as planning meetings, scheduling appointments, preparing reports, greeting visitors, and assuming responsibilities including organizing an office and resolving relational problems with people inside and outside the organization.

Career Opportunities

Graduates of the San Jacinto College BOSS program are employed in:

• Schools
• Hospitals
• Corporate Settings
• Government agencies

Graduate opportunities may also extend beyond this program with certification from the International Association of Administrative Professionals as a Certified Administrative Professional (CAP). Certification in this field usually leads to a higher salary.

Earning Potential

Executive Administrative Assistant - $61,846 per year


For more information, please contact Central campus, 281-476-1836; North campus, 281-998-6150, x7242; or South campus, 281-929-4603.

Campus(es)

Central Campus
North Campus
South Campus

Information

Now more than ever, administrative assistants play an integral role in the success of an organization. They are highly valued, collaborative team members with a wide range of skills which enable them to work in a variety of industries. In the Business Office Systems and Support (BOSS) program, our students develop competencies in office procedures, software applications, accounting skills, organizational skills, office management, and project management, as well as in the essential workplace soft skills employers demand.

Completion of the Office Assistant Occupational Certificate is the first step to take toward achieving your goal of having a fulfilling and challenging career in this field. Keyboarding proficiency is recommended for all the certificates as well as the degree in this program.

Occupational Certificate

The Office Assistant Occupational Certificate is designed to provide students with entry-level office skills. All courses in this certificate also apply toward the certificate of technology, the level 2 certificate, and the Associate of Applied Science (AAS) degree in the Business Office Systems and Support (BOSS) program. The attainment of each higher-level certificate prepares students for work as an administrative assistant with progressively greater responsibility and skill level.

Plan of Study

All Campuses
6BOOA

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<thead>
<tr>
<th>Course</th>
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<td>Business English</td>
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<td>POFT 1309</td>
<td>Administrative Office Procedures I</td>
<td>3</td>
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<td>POFT 1319</td>
<td>Records and Information Management I</td>
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Capstone Experience: POFT 1319 Records and Information Management I

Global Logistics and Supply Chain Management, Associate of Applied Science

Program Information

Want to see the busiest and most profitable marketplace society has ever built? Just take a look around you! We live in a global economy. International trade is how tens of thousands of companies function, from huge corporations to small shops. Become a vital link in this chain of commerce with a degree from San Jacinto College. Our program teaches you the complexities of successfully operating in the global logistics community. You may decide to become an importer-exporter or enter the fast-changing world of wholesale and retail buying or one of the many other options that a degree from San Jacinto College opens for you!

The San Jacinto College global logistics and supply chain management program:
Global Logistics and Supply Chain Management, Associate of Applied Science

• Is designed to prepare students for careers in transportation industries, international logistics, and global supply chain management industries;
• Offers a solid foundation in import/export management processes, world economics, licensing and documentation, US Customs regulations, and political-legal factors in the foreign trade environment;
• Teaches students about international purchasing and sourcing, international marketing strategies, monetary systems, international and domestic transportation and logistics, organizational culture, and global maritime management; and
• Provides field experience that offers hands-on experience as logistics interns with companies in the Greater Houston area.

Career Opportunities
Graduates of this program will work as specialists in:
• Importing and exporting
• Trade compliance
• The United States government
• Freight forwarders
• Custom brokers
• Ocean/truck/rail/air transportation
• Logistics
• Retail and wholesale representatives

Earning Potential
Production, Planning, and Expediting Clerk median salary: $48,186 per year 1


For more information, please contact 281-998-6150, x7242.

Campus
North Campus

Information
The Global Logistics and Supply Chain Management program is designed to produce graduates who are qualified for entry-level positions in a multitude of career opportunities in distribution, transportation, warehousing, trucking operations, supply chain, and manufacturing organizations. In today’s global marketplace, there are unprecedented opportunities for logistics and supply chain management professionals who are capable of integrating and optimizing all the steps required to deliver the right product to the right customer at the right time. With the performance of the logistical and supply chain process being a critical factor in a company’s profitability, the demand for skilled workers in this field continues to increase. All the program courses listed in the certificate of technology below also apply toward the Global Logistics and Supply Chain Management Associate of Applied Science (AAS) degree. A student completing the courses as outlined per term can complete this AAS degree in two years.

Plan of Study
North Campus

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<td>IBUS 1300</td>
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<td>BCIS 1305  or ITSC 1309</td>
<td>Business Computer Applications or Integrated Software Applications I</td>
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<td>LMGT 1325</td>
<td>Warehouse and Distribution Center Management</td>
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<td>Composition I</td>
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<td>PHIL 2306</td>
<td>Introduction to Ethics</td>
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<td>LMGT 1319</td>
<td>Introduction to Business Logistics</td>
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<td>LMGT 1321</td>
<td>Introduction to Materials Handling</td>
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<td>GEOG 1303</td>
<td>World Regional Geography</td>
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<td>ENGL 1302  or ENGL 2311</td>
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<td>Third Term</td>
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<td>IBUS 1301</td>
<td>Principles of Exports</td>
<td>3</td>
</tr>
<tr>
<td>IBUS 1341</td>
<td>Introduction to International Supply Chain Global Management</td>
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<td>IBUS 2341</td>
<td>Intercultural Management</td>
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<tr>
<td>IBUS 2367  or IBUS 2332</td>
<td>Practicum - Field Experience or Global Business Simulation</td>
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<td>MATH 1332  or MATH 1314</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher) or College Algebra</td>
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<td>IBUS 1302</td>
<td>Principles of Imports</td>
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<td>IBUS 1354</td>
<td>International Marketing Management</td>
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<td>LMGT 1345</td>
<td>Economics of Transportation and Distribution</td>
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Capstone Experience: IBUS 2367 Practicum - Field Experience or IBUS 2332 Global Business Simulation

1 Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.
Global Logistics and Supply Chain Management, Certificate of Technology

Program Information

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• Trade compliance
• The United States government
• Freight forwarders
• Custom brokers
• Ocean/truck/rail/air transportation
• Logistics
• Retail and wholesale representatives

Earning Potential

Production, Planning, and Expediting Clerk median salary: $48,186 per year


For more information, please contact 281-998-6150, x7242.

Campus

North Campus

Information

The Global Logistics and Supply Chain Management program is designed to produce graduates who are qualified for entry-level positions in a multitude of career opportunities in distribution, transportation, warehousing, trucking operations, supply chain, and manufacturing organizations. In today’s global marketplace, there are unprecedented opportunities for logistics and supply chain management professionals who are capable of integrating and optimizing all the steps required to deliver the right product to the right customer at the right time. With the performance of the logistical and supply chain process being a critical factor in a company’s profitability, the demand for skilled workers in this field continues to increase. All the program courses listed in the certificate of technology below also apply toward the Global Logistics and Supply Chain Management Associate of Applied Science (AAS) degree. A student completing the courses as outlined per term can complete this AAS degree in two years.

Plan of Study

North Campus

4GLOBL-LOG

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<td>Business Computer Applications or Integrated Software Applications I</td>
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<td>LMGT 1325</td>
<td>Warehouse and Distribution Center Management</td>
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<td>LMGT 1319</td>
<td>Introduction to Business Logistics</td>
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<td>LMGT 1321</td>
<td>Introduction to Materials Handling</td>
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Second Term

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<td>IBUS 1301</td>
<td>Principles of Exports</td>
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<td>IBUS 1341</td>
<td>Introduction to International Supply Chain Global Management</td>
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<td>IBUS 2341</td>
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<td>IBUS 1302</td>
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Third Term

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<td>LMGT 2330</td>
<td>International Logistics Management</td>
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San Jacinto College 2019-2020
Long Term Care Administration, Advanced Technical Certificate

Program Objectives

Long term care of the elderly, physically ill, and mentally ill is a rapidly growing field with increasing demand for licensed administrators. As the US population ages, the need for quality long term care increases. 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 long term care administration (LTCA) program offered at the San Jacinto College Central campus will assist you in developing the leadership and critical thinking skills needed to succeed in this unique business environment.

As health care continues to follow a more businesslike approach, business degrees have become a professional necessity. The LTCA 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, health care administration, nursing, or some other closely-related discipline.

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).

Additional Information

The National Association of Boards of Examiners for long term care administrators (NAB) requires that you complete certain topics of study as part of, or in addition to, a bachelor’s degree.

Questions regarding licensure and state exam requirements should be directed to the Texas Department of Aging and Disability Services (DADS) at 512-438-2015 or www.dads.state.tx.us (http://www.dads.state.tx.us).

Career Opportunities

An advanced technical certificate in long term care prepares you to manage the business and administrative aspects of residential care for the elderly and chronically ill including managing:

- Nursing homes
- Assisted living facilities
- Retirement communities
- Hospices

For more information contact 281-998-6150, x1841.

Campus

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 US 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 develop the leadership and critical thinking skills students need to succeed in this unique business environment while also focusing on the practical aspects of long term care.

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 students 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 DADS at 512-438-3011 or www.dads.state.tx.us (http://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.

**Long-term care administration advanced technical certificate**

Entrance into this program requires a minimum of a bachelor’s degree that has been conferred by an accredited institution. The degree should be in Business, Business Management, Healthcare Administration, Nursing, or some other closely related discipline.

**Plan of Study**

**Central Campus**

**ALTRM-CARE**

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<td>LTCA 2315</td>
<td>Financial Management of Long Term Care Facilities</td>
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<td>LTCA 2488</td>
<td>Internship-Health Care Facilities Administration/Management</td>
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<td>LTCA 1312</td>
<td>Resident Care in the Long-Term Care Facility</td>
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<td>LTCA 1313</td>
<td>Organization and Management of Long Term Care Facilities</td>
<td>3</td>
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<td>LTCA 2489</td>
<td>Internship-Health Care Facilities Administration/Management</td>
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<td>LTCA 2310</td>
<td>Environment of Long-Term Care Facility</td>
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<td>LTCA 2388</td>
<td>Internship-Health Care Facilities Administration/Management</td>
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<td><strong>Total Credits</strong></td>
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</table>

**Paralegal, Associate of Applied Science**

**Program Information**

*What is a paralegal/legal assistant?*

A paralegal, also called a legal assistant, is a person who is qualified by education, training, or work experience; who is employed or retained by a lawyer, law office, corporation, government agency, or other entity; and who performs specifically delegated substantive legal work for which a lawyer is responsible.

*What does a Paralegal do?*

The lawyer delegates duties to the paralegal. These duties will depend on the individual’s abilities, specialty, and/or employment. Generally those duties will include one or more of the following categories:

- Perform legal research,
- Interview clients/witnesses and conduct investigations,
- Draft legal documents,
- Calendar and track deadlines,
- Provide litigation support,
- Assist at hearings and trials, and
- Use technology to perform tasks.

A paralegal may not provide legal services directly to the public unless specifically authorized by law.

**Additional Information**

Employment opportunities for the paralegal are wide ranging and numerous. There are many job opportunities for a qualified paralegal including, but not limited to, the following areas:

- Private law firms (70 percent),
- Corporate legal departments,
- Insurance companies,
- Real estate agencies,
- Title companies,
- The court system,
• Trust and mortgage departments, and
• Government agencies.

**Associate of Applied Science**

The Associate of Applied Science (AAS) paralegal program is approved by the American Bar Association (ABA).

The paralegal curriculum at San Jacinto College is designed to provide students with the knowledge and skills required to work under the supervision of lawyers. The program provides the paralegal student with knowledge and skills for employment in law firms, corporations, government agencies, and other legal departments.

Lambda Epsilon Chi (LEX) is the national honor society founded by the American Association for Paralegal Education. San Jacinto College paralegal students who have completed two-thirds of the College’s paralegal program with a 3.25 overall GPA and a 3.5 legal specialty courses GPA, and demonstrate academic excellence may qualify for LEX.

**Paralegal Associations**

**The American Bar Association (ABA)**  
**State Bar of Texas Paralegal Division**

The State Bar of Texas (SBOT)’s Standing Committee paralegal division mission is “to promote and assist the legal profession in the use of paralegals,” and it provides articles, resources, and links on its website.

• American Bar Association (ABA)  
• American Association for Paralegal Education (AAfPE)  
• State Bar of Texas, Paralegal Division (TXPD)  
• Houston Metropolitan Paralegal Association (HMPA)  
• Houston Paralegal Association (HPA)

**Career Opportunities**

The US Department of Labor predicts the paralegal profession will grow 15 percent through the year 2026. The San Jacinto College paralegal program enjoys more than a 90 percent success rate.

Most of the entry-level job opportunities are with private law firms from one-attorney firms to large firms. The paralegal will usually specialize in one or two areas of law, but some in general practice will work in various areas.

Corporate law departments, government agencies, and other legal departments also provide jobs for our graduates.

Paralegals pursue careers in:

• Litigation,  
• Personal Injury,  
• Corporate Law,  
• Criminal Law,  
• Employee Benefits,  
• Intellectual Property,  
• Bankruptcy,  
• Immigration Law,  
• Family Law,  
• Real Estate, and  
• Many other areas of law.

Internship opportunities include work for paralegals in: law firms, corporate business, government agencies, real estate, insurance, and non-profit organizations.

**Earning Potential**

Paralegal media salary: $57,356 per year\(^1\)

\(^1\) Source: texasswages.com (http://texasswages.com), Gulf Coast region, 2017.

For more information contact 281-998-6150, x7201.

**Campus**

North Campus

**Information**

The paralegal curriculum at San Jacinto College 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.

**Plan of Study**

North Campus  
3PARA-LGL

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tr>
<td>LGLA 1311</td>
<td>Introduction to Law</td>
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<td>LGLA 1313</td>
<td>Introduction to Paralegal Studies</td>
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<td>PSYC 1300</td>
<td>Learning Framework</td>
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<td>ENGL 1301</td>
<td>Composition I</td>
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<tr>
<td>BCIS 1305</td>
<td>Business Computer Applications</td>
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<td>Credits</td>
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<tr>
<td>Second Term</td>
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<tr>
<td>LGLA 1301</td>
<td>Legal Research and Writing</td>
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<td>LGLA 1345</td>
<td>Civil Litigation</td>
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<td>LGLA 1317</td>
<td>Law Office Technology</td>
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<td>ENGL 1302</td>
<td>Composition II</td>
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<td>MATH 1314</td>
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<td>or MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning)</td>
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<td>Third Term</td>
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<td>LGLA 1355</td>
<td>Family Law</td>
<td>3</td>
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<td>LGLA 2305</td>
<td>Interviewing and Investigating</td>
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<td>LGLA 1349</td>
<td>Constitutional Law</td>
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<td>LGLA 2335</td>
<td>Advanced Civil Litigation</td>
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<tr>
<td>Credits</td>
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<td>15</td>
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<td>Fourth Term</td>
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</tr>
<tr>
<td>LGLA 2313</td>
<td>Criminal Law and Procedure</td>
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</tr>
</tbody>
</table>

San Jacinto College 2019-2020
Real Estate Advanced, Level 2 Certificate

Program Information
Do you love exploring neighborhoods looking at "dream homes?" Are you a people person with strong relationship skills? If so, a career as a real estate agent may be for you. Real estate agents make an excellent living and enjoy a stimulating, fast-paced working environment. If negotiating deals and being in complete control over your success fits your personality and career dreams, then San Jacinto College is the perfect place to jump start your career!

The San Jacinto College real estate certificate program:

- Is designed to enable students to gain the knowledge and credentials necessary to take the salesperson’s licensure examination;
- Includes 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; and
- Bears the prestigious Exemplary Workforce Education Program rating from the Texas Higher Education Coordinating Board and is taught by instructors who are experienced specialists.

Additional Information
All the courses in the certificate program also apply toward the Associate of Applied Science (AAS) degree.

The two-year program that leads to an AAS degree is for students who want to earn an associate 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.

Career Opportunities
Students who pursue a certificate or degree in real estate seek employment in:

- Residential brokerage,
- Commercial brokerage,
- Property management,
- Appraisal,
- Apartment locating,
- Mortgage lending,
- Title services,
- Inspection, and
- Government or corporate services.

Students may also be self-employed in real estate consulting or full-time investing.

Earning Potential
Real Estate Broker median salary: $65,867 per year
Real Estate Sales Agent median salary: $60,945 per year

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact 713-894-9436.

Campuses
Central Campus
North Campus
South Campus

Information
The Level 2 certificate allows the student to complete all the program specific courses in real estate. This would be beneficial for a student who 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).

Admission
No admission requirements.

Job entry requirements:
For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

Plan of Study
All Campuses
The San Jacinto College real estate certificate program:

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- Includes 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; and
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- Commercial brokerage,
- Property management,
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- Government or corporate services.

Students may also be self-employed in real estate consulting or full-time investing.

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Real Estate Sales Agent median salary: $60,945 per year\(^1\)

\(^1\) Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact 713-894-9436.

Program Information

Do you love exploring neighborhoods looking at “dream homes?” Are you a people person with strong relationship skills? If so, a career as a real estate agent may be for you. Real estate agents make an excellent living and enjoy a stimulating, fast-paced working environment. If negotiating deals and being in complete control over your success fits your personality and career dreams, then San Jacinto College is the perfect place to jump start your career!

Real Estate, Associate of Applied Science

Capstone Experience: RELE 2367 Real Estate Practicum 2
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.

**Admission**

No admission requirements.

Job entry requirements:

For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

**Plan of Study**

**All Campuses**

3REAL

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<tr>
<td>RELE 1201</td>
<td>Principles of Real Estate I</td>
<td>2</td>
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<tr>
<td>RELE 1211</td>
<td>Law of Contracts</td>
<td>2</td>
</tr>
<tr>
<td>RELE 1238</td>
<td>Principles of Real Estate II</td>
<td>2</td>
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<td>RELE 1300</td>
<td>Contract Forms and Addenda</td>
<td>3</td>
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<td>RELE 1319</td>
<td>Real Estate Finance</td>
<td>3</td>
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<td>RELE 2301</td>
<td>Law of Agency</td>
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<td>Software Applications I</td>
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<td>RELE 1303</td>
<td>Real Estate Appraisal</td>
<td>3</td>
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<td>RELE 1321</td>
<td>Real Estate Marketing or Principles of Selling</td>
<td>3</td>
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<td>RELE 1325</td>
<td>Real Estate Mathematics</td>
<td>3</td>
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<td>RELE 2366</td>
<td>Real Estate Practicum I (or Field Experience)</td>
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<td>RELE 1307</td>
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<td>RELE 1323</td>
<td>Real Estate Computer Application or Property</td>
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<td>Management</td>
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<td>RELE 2331</td>
<td>Real Estate Brokerage</td>
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<tr>
<td>RELE 2367</td>
<td>Real Estate Practicum 2</td>
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<td>Social and Behavioral Sciences</td>
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<td>3</td>
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<td>Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)</td>
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<td>ENGL 1301</td>
<td>Composition I</td>
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<tr>
<td>MATH 1314 or MATH 1332</td>
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</table>

**Capstone Experience:** RELE 2367 Real Estate Practicum 2

Students must be Texas Success Initiative (TSI) complete in order to graduate: Math level 9

**Real Estate, Certificate of Technology**

**Program Information**

Do you love exploring neighborhoods looking at "dream homes?" Are you a people person with strong relationship skills? If so, a career as a real estate agent may be for you. Real estate agents make an excellent living and enjoy a stimulating, fast-paced working environment. If negotiating deals and being in complete control over your success fits your personality and career dreams, then San Jacinto College is the perfect place to jump start your career!

The San Jacinto College real estate certificate program:

- Is designed to enable students to gain the knowledge and credentials necessary to take the salesperson's licensure examination;
- Includes 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; and
- Bears the prestigious Exemplary Workforce Education Program rating from the Texas Higher Education Coordinating Board and is taught by instructors who are experienced specialists.

**Additional Information**

All the courses in the certificate program also apply toward the Associate of Applied Science (AAS) degree.

The two-year program that leads to an AAS degree is for students who want to earn an associate 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.

**Career Opportunities**

Students who pursue a certificate or degree in real estate seek employment in:
• Residential brokerage,
• Commercial brokerage,
• Property management,
• Appraisal,
• Apartment locating,
• Mortgage lending,
• Title services,
• Inspection, and
• Government or corporate services.

Students may also be self-employed in real estate consulting or full-time investing.

Earning Potential
Real Estate Broker median salary: $65,867 per year

Real Estate Sales Agent median salary: $60,945 per year

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact 713-894-9436.

Campuses
Central Campus
North Campus
South Campus

Information
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 (AAS) degree.

Admission
No admission requirements.

Job entry requirements:

For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

Plan of Study
All Campuses
4REAL

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
<td>First Term</td>
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<tr>
<td>RELE 1201</td>
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<tr>
<td>Second Term</td>
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<td>BCIS 1305</td>
<td>Business Computer Applications</td>
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<td>or ITSC 1309</td>
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Capstone Experience: RELE 2366 Real Estate Practicum I or RELE 2367 Real Estate Practicum 2

Approved Real Estate Electives

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<th>Code</th>
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<td>RELE 1307</td>
<td>Real Estate Investments</td>
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<td>RELE 1325</td>
<td>Real Estate Mathematics</td>
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<td>RELE 2331</td>
<td>Real Estate Brokerage</td>
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<tr>
<td>or RELE 1323</td>
<td>Real Estate Computer Application</td>
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</tbody>
</table>

No course may be repeated for credit.

Real Estate, Occupational Certificate

Program Information
Do you love exploring neighborhoods looking at “dream homes?” Are you a people person with strong relationship skills? If so, a career as a real estate agent may be for you. Real estate agents make an excellent living and enjoy a stimulating, fast-paced working environment. If negotiating deals and being in complete control over your success fits your personality and career dreams, then San Jacinto College is the perfect place to jump start your career!

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• Inspection, and
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1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact 713-894-9436.

Campuses

Central Campus
North Campus
South Campus

Information

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 (AAS) degree.

Admission

No admission requirements.

Job entry requirements:

For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

Plan of Study

All Campuses

6REAL

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Total Credits 15

Capstone Experience: RELE 1300 Contract Forms and Addenda


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 the 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 be in core real estate courses. An applicant must have taken a real estate brokerage class.

Also, at least four years active experience 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

Code   | Title                        | Credits |
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*Related Courses Acceptable Toward Broker Licensure can be found on the TREC website [www.trec.texas.gov](http://www.trec.texas.gov).*
CONSTRUCTION, INDUSTRY, MANUFACTURING AND TRANSPORTATION

• Auto Tech, Ford Automotive Student Educational Training (ASSET) Program, Associate of Applied Science
• Auto Tech, Ford Automotive Student Educational Training (ASSET) Program, Level 2 Certificate
• Auto Tech, Future Automotive Service Technicians (FAST) Program Automotive Technology, Associate of Applied Science
• Auto Tech, Future Automotive Service Technicians (FAST) Program Automotive Technology, Level 2 Certificate of Technology
• Auto Tech, General Motors Automotive Service Educational Program (ASEP), Associate of Applied Science
• Auto Tech, Honda Professional Automotive Career Training (PACT) Program, Associate of Applied Science Degree
• Auto Tech, Honda Professional Automotive Career Training (PACT) Program, Level 2 Certificate
• Auto Tech, Mopar College Automotive Program (CAP), Associate of Applied Science
• Auto Tech, Mopar College Automotive Program (CAP), Level 2 Certificate of Technology
• Auto Tech, Toyota Technician Training & Education Network (T-TEN) Program, Associate of Applied Science
• Auto Tech, Toyota Technician Training & Education Network (T-TEN) Program, Level 2 Certificate
• Automotive Collision Repair Technology Management Specialty, Associate of Applied Science
• Automotive Collision Repair Technology Management Specialty, Certificate of Technology
• Automotive Collision Repair Technology, Associate of Applied Science
• Automotive Collision Repair, Certificate of Technology
• Automotive Collision, Automotive Painting Specialty, Occupational Certificate
• Automotive Collision, Non-Collision Repair, Certificate of Technology
• Automotive Collision, Repair Assistant, Occupational Certificate
• Biomedical Clinical Equipment Technician, Associate of Applied Science
• Biomedical Clinical Equipment Technician, Certificate of Technology
• Biomedical Clinical Equipment Technician, Level 2 Certificate
• Construction Management Technology, Associate of Applied Science
• Construction Management, Certificate of Technology
• Electrical Technology Communications and Alternative Energy, Enhanced Skills Certificate
• Electrical Technology, Associate of Applied Science
• Electrical Technology, Certificate of Technology
• Electrical Technology, Enhanced Skills Certificate
• Electrical Technology, Level 2 Certificate
• Electrical Technology, Occupational Certificate
• Electronics Technology, Associate of Applied Science
• Electronics Technology, Certificate of Technology
• Electronics Technology, Enhanced Skills Certificate
• Electronics Technology, Occupational Certificate
• Environmental Health and Safety Technology, Associate of Applied Science
• Environmental Health and Safety Technology, Level 2 Certificate
• Heavy Diesel Truck, Associate of Applied Science
• Heavy Diesel Truck, Certificate of Technology
• HVAC, Commercial Air Conditioning Technology, Associate of Applied Science
• HVAC, Commercial Air Conditioning Technology, Certificate of Technology
• HVAC, Commercial Air Conditioning Technology, Level 2 Certificate
• HVAC, Commercial Air Conditioning Technology, Occupational Certificate
• HVAC, Residential Air Conditioning Technology, Certificate of Technology
• HVAC, Residential Air Conditioning Technology Occupational Certificate
• HVAC, Residential Air Conditioning Technology, Associate of Applied Science
• Instrumentation Technology, Associate of Applied Science
• Instrumentation Technology, Enhanced Skills Certificate
• Instrumentation Technology, Level 2 Certificate
• Maritime Career Interest, Occupational Certificate
• Maritime Transportation, Associate of Applied Science
• NDT, Fixed Equipment Specialist, Enhanced Skills Certificate
• NDT, Nondestructive Testing Technology, Associate of Applied Science
• NDT, Nondestructive Testing Technology, Certificate of Technology
• NDT, Nondestructive Testing Technology, Level 2 Certificate
• NDT, Quality Analyst, Enhanced Skills Certificate
• NDT, Quality Assurance Technician, Occupational Certificate
• Pipefitting Technology, Occupational Certificate
• Process Technology Chemical Technician, Enhanced Skills Certificate
• Process Technology, Associate of Applied Science
• Process Technology, Level 2 Certificate
• Welding Technology, Associate of Applied Science
• Welding Technology, Art-Welding, Occupational Certificate
• Welding Technology, Combination Welder, Certificate of Technology
• Welding, Gas Shielded Welding, Certificate of Technology

San Jacinto College 2019-2020
Program Information

Are you looking to shift your career into high gear? If so, look no further than the Ford Automotive Service Student Education Training (ASSET) at San Jacinto College. Cars and trucks are much more complex than they used to be, increasingly relying on complicated computer systems and electronics for operation. At San Jacinto College, you get the right training you need to excel in the ever-changing and always exciting field of automotive technology. Ford ASSET trains students to become successful service technicians certified in Ford service, diagnostic and repair methods.

The Ford ASSET program:

- Is recognized as the premier program in the global automotive industry for training and placement of new manufacturer-specific technicians.
- Is the primary source of new technicians trained and equipped with the basic knowledge, skills and experience to become successful and productive career professionals at the senior master level, while earning an associate degree.
- Provides tools, course materials and the opportunity to “Earn While You Learn” as students are also employed as dealer technicians while completing the program.
- Students in the ASSET program earn factory Ford Certifications to become Ford certified technicians.
- Gives students the experience needed to prepare for the Automotive Service Excellence (ASE) exam.

Additional Information

Ford ASSET Certification and Training Areas:

- Welding, Industrial Welder, Level 2 Certificate
- Welding, Stick Pipe Welder, Occupational Certificate
- Gasoline engine performance
- Gasoline engine repair
- Steering and suspension
- Brake systems
- Electrical systems
- Climate control
- Manual transmissions and axles
- Automatic transmissions
- Diesel engine performance
- Diesel engine repair
- Gasoline Turbo Direct Injection (GTDI)

Career Opportunities

The Ford ASSET program prepares students for careers in dealerships as:

- Service technicians
- Parts counter persons
- Service writers
- Car sales personnel

Earning Potential

Automotive Service Technicians and Mechanics median salary: $44,042 per year

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2016

For more information, please contact 281-476-1865.

Campus(es)

Central Campus

Information

The Ford ASSET Program streamlines the path to becoming a highly trained automotive technician to less than two years. In 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 80-100% 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.

### Plan of Study

**Central Campus**

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<td>Manual Drivetrain and Axles</td>
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**Capstone Experience:** AUMT 2288; Eligible for credentialing exams

**Note:** Applicants must meet the admission requirements for San Jacinto College.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved by the Department Chair.

### Auto Tech, Ford Automotive Student Educational Training (ASSET) Program, Level 2 Certificate

**Program Information**

Are you looking to shift your career into high gear? If so, look no further than the Ford Automotive Service Student Education Training (ASSET) at San Jacinto College. Cars and trucks are much more complex than they used to be, increasingly relying on complicated computer systems and electronics for operation. At San Jacinto College, you get the right training you need to excel in the ever-changing and always exciting field of automotive technology. Ford ASSET trains students to become successful service technicians certified in Ford service, diagnostic and repair methods.

The Ford ASSET program:

- Is recognized as the premier program in the global automotive industry for training and placement of new manufacturer-specific technicians.
- Is the primary source of new technicians trained and equipped with the basic knowledge, skills and experience to become successful and productive career professionals at the senior master level, while earning an associate degree.
- Provides tools, course materials and the opportunity to "Earn While You Learn" as students are also employed as dealer technicians while completing the program.
- Students in the ASSET program earn factory Ford Certifications to become Ford certified technicians.
- Gives students the experience needed to prepare for the Automotive Service Excellence (ASE) exam.

### Additional Information

Ford ASSET Certification and Training Areas:

- Gasoline engine performance
- Gasoline engine repair
- Steering and suspension
- Brake systems
- Electrical systems
- Climate control
- Manual transmissions and axles
- Automatic transmissions
- Diesel engine performance
Auto Tech, Future Automotive Service Technicians (FAST) Program Automotive Technology, Associate of Applied Science

- Diesel engine repair
- Gasoline Turbo Direct Injection (GTDI)

Career Opportunities
The Ford ASSET program prepares students for careers in dealerships as:
- Service technicians
- Parts counter persons
- Service writers
- Car sales personnel

Earning Potential
Automotive Service Technicians and Mechanics median salary: $44,042 per year

For more information, please contact 281-476-1865.

Campus(es)
Central Campus

Information
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. Throughout the program, students are able to practice their learning during dealership paid internships thus “earning while you learn.” Upon the completion of this curriculum, students will have earned Ford certification and should be prepared to take the Automotive Service Excellence (ASE) Certification exams and be ready for full-time employment at a Ford/Lincoln dealership. Students interested in the Ford Level 2 Certificate program must meet with the ASSET coordinator or Department Chair before registering for automotive classes.

Plan of Study
Central Campus
5AUTO-F

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Third Term

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Fourth Term

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Total Credits: 45

Capstone Experience: AUMT 2288 Internship - Automotive Technology

Eligible for credentialing exam

Note: Applicants must meet the admission requirements for San Jacinto College.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved by the Department Chair.

Auto Tech, Future Automotive Service Technicians (FAST) Program Automotive Technology, Associate of Applied Science

Program Information
With automotive technology rapidly developing each year and becoming increasingly complex, the industry demand for qualified service technicians grows exponentially. At San Jacinto College, you will receive the proper hands-on training and education in order to excel and become successful in the automotive field. You’ll study the eight areas of Automotive Service Excellence (ASE), with the goal of becoming properly trained, certified, and employed at an automotive repair facility. After graduation, you will have several exciting career avenues to choose from, including service technician, shop foreman, service advisor, service manager, parts counter, and car sales – all areas that reward hard workers and strong talent.
The San Jacinto College F.A.S.T. automotive technology program:

- Offers lectures and in-class demonstrations, combined with practice lab skill sets, which better prepare and train the student to transition into the work force;
- Provides students with the opportunity to work in the automotive field while attending school, Earn while you learn;
- Teaches students the theory of operation, component identification, and diagnostic procedures; all of which helps develop critical thinking skills necessary for proper vehicle diagnostics along with better preparation for passing the ASE exams;
- Provides students the hands-on experience needed for proper development and training.

**Career Opportunities**

The San Jacinto College automotive technology program prepares students for careers in:

- Automotive Dealerships
- Independent service shops
- Franchise repair shops
- Exhaust shops
- Brake shops
- Tire specialty shops

**Earning Potential**

Automotive Service Technicians and Mechanics median salary: $41,705 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, 281-998-6150, x1150

**Campus(es)**

Central Campus

**Information**

The Automotive Technology Future Automotive Service Technicians (FAST) Program prepares individuals for employment as entry level Automotive Service Technicians. San Jacinto College can provide 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.

**Plan of Study**

**Central Campus**

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<tr>
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**Capstone Experience:** AUMT 2289 Internship - Automotive Technology, Eligible for credentialing exams

**Note:** Applicants must meet the admission requirements for San Jacinto College.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved by the Department Chair.
Auto Tech, Future Automotive Service Technicians (FAST) Program

Automotive Technology, Level 2 Certificate of Technology

Program Information

With automotive technology rapidly developing each year and becoming increasingly complex, the industry demand for qualified service technicians grows exponentially. At San Jacinto College, you will receive the proper hands-on training and education in order to excel and become successful in the automotive field. You'll study the eight areas of Automotive Service Excellence (ASE), with the goal of becoming properly trained, certified, and employed at an automotive repair facility. After graduation, you will have several exciting career avenues to choose from, including service technician, shop foreman, service advisor, service manager, parts counter, and car sales – all areas that reward hard workers and strong talent.

The San Jacinto College F.A.S.T. automotive technology program:

• Offers lectures and in-class demonstrations, combined with practice lab skill sets, which better prepare and train the student to transition into the work force;
• Provides students with the opportunity to work in the automotive field while attending school, Earn while you learn;
• Teaches students the theory of operation, component identification, and diagnostic procedures; all of which helps develop critical thinking skills necessary for proper vehicle diagnostics along with better preparation for passing the ASE exams;
• Provides students the hands-on experience needed for proper development and training.

Career Opportunities

The San Jacinto College automotive technology program prepares students for careers in:

• Automotive Dealerships
• Independent service shops
• Franchise repair shops
• Exhaust shops
• Brake shops
• Tire specialty shops

Earning Potential

Automotive Service Technicians and Mechanics median salary: $41,705 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, 281-998-6150, x1150

Campus(es)
Central Campus

Information

The Automotive Technology Future Automotive Service Technicians (FAST) Program prepares individuals for employment as Automotive Service Technicians. San Jacinto College can provide 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.

Plan of Study

Central Campus

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<thead>
<tr>
<th>Course</th>
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<tr>
<td>AUMT 2413</td>
<td>Manual Drivetrain and Axles</td>
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</table>
Are you looking to shift your career into high gear? Look no further than the General Motors (GM) Automotive Service Education Program (ASEP) at San Jacinto College. Cars and trucks are much more complex than they used to be, increasingly relying on complicated computer systems and electronics for operation. With GM being the world’s largest automotive manufacturer, you have access to the latest equipment and technology. At San Jacinto College, you can get the right training you need to excel in the ever-changing and always exciting field of automotive technology. As you learn about and work with cars from the world’s largest automotive manufacturer, you will have access to the latest equipment and technology.

The GM Automotive Service Education Program:

- Offers hands-on training to learn the automotive fundamentals for GM vehicles;
- Provides tools, course materials, and the opportunity to **Earn While You Learn** as students are also employed as dealer technicians while completing the program;
- Gives students experience needed to prepare for the Automotive Service Excellence exam; and
- Provides scholarships and tuition assistance available to those that qualify.

**Career Opportunities**

The GM ASEP prepares students for careers in dealerships as:

- Service technicians
- Parts counter persons
- Service writers
- Car salesperson
- Service manager

**Earning Potential**

Automotive Service Technicians and Mechanics median salary: \$47,259 per year\(^1\)

\(^1\) Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact 281-998-6150, x1535

**Campus**

Central Campus

**Information**

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 learn 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 80-100 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 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.

**Plan of Study**

Central Campus

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<tr>
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**Capstone Experience:** AUMT 2288 Internship - Automotive Technology; Eligible for credentialing exam

**Note:** Applicants must meet the admission requirements for San Jacinto College.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved by the Department Chair.

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**Program Information**

Are you looking to shift your career into high gear? Look no further than the Honda Professional Automotive Career Training (PACT) program at San Jacinto College. Automobiles are much more complex than they used to be, increasingly relying on complicated computer systems and electronics for operation. At San Jacinto College, you will get the right training on Honda and Acura vehicles to excel in the ever-changing and always exciting field of automotive technology. The Honda PACT program opens students to several exciting career avenues, including service technician, parts counter, service writer, shop foreman, service manager and car sales – all areas that reward strong talent.

The Honda PACT program:

- Offers hands-on training to learn the automotive fundamentals for Honda and Acura vehicles.
- Provides the opportunity to “Earn While You Learn” as students are also employed as dealer technicians while completing the program.
- Gives students experience needed to prepare for the Automotive Service Excellence (ASE) exam.

**Career Opportunities**

The Automotive Technology Honda PACT program prepares students for careers in dealerships as:

- Service advisors
- Service technicians
- Parts counter persons
- Service writers
- Car salesperson
Earning Potential

Earning potential varies widely, depending on work ethic, experience, certifications, and dealer work flow.

For more information, contact Manit Bunnimit, Program Coordinator at manit.bunnimit@sjcd.edu or 281-998-6150, x1137 or Kay Richardson, Department Chair at kay.richardson@sjcd.edu or 281-991-2608

Campus(es)

Central Campus

Information

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 and hands-on work experience at your sponsoring dealership. Honda PACT instructors are Honda trained and in touch with the latest automotive trends. 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. 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. As a Honda PACT student you will complete between approximately 85% of the manufacturer training required to become a Honda or Acura 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. The Honda PACT program at San Jacinto College is accredited by the ASE Education Foundation (ASEEF). 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) to be credentialed 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.

Plan of Study

Central Campus

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Capstone Experience: AUMT 2289 Internship - Automotive Technology

Eligible for credentialing exams

Note: Applicants must meet the admission requirements for San Jacinto College.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved by the Department Chair.

Auto Tech, Honda Professional Automotive Career Training (PACT) Program, Level 2 Certificate

Program Information

Are you looking to shift your career into high gear? Look no further than the Honda Professional Automotive Career Training (PACT) program at San Jacinto College. Automobiles are much more complex than they used to be, increasingly relying on complicated computer systems and electronics for operation. At San Jacinto College, you will get the right
training on Honda and Acura vehicles to excel in the ever-changing and always exciting field of automotive technology. The Honda PACT program opens students to several exciting career avenues, including service technician, parts counter, service writer, shop foreman, service manager and car sales – all areas that reward strong talent.

The Honda PACT program:

- Offers hands-on training to learn the automotive fundamentals for Honda and Acura vehicles.
- Provides the opportunity to “Earn While You Learn” as students are also employed as dealer technicians while completing the program.
- Gives students experience needed to prepare for the Automotive Service Excellence (ASE) exam.

Career Opportunities

The Automotive Technology Honda PACT program prepares students for careers in dealerships as:

- Service advisors
- Service technicians
- Parts counter persons
- Service writers
- Car salesperson

Earning Potential

Earning potential varies widely, depending on work ethic, experience, certifications, and dealer work flow.

For more information, contact Manit Bunnimit, Program Coordinator at manit.bunnimit@sjcd.edu or 281-998-6150, x1137 or Kay Richardson, Department Chair at kay.richardson@sjcd.edu or 281-991-2608

Campus(es)

Central Campus

Information

The Honda PACT Level 2 certificate is designed to teach technical competence and professional level skills to incoming technicians. The curriculum has been co-designed by Honda and San Jacinto College. San Jacinto College can provide 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 ASE Education Foundation (ASEEF). 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.

Plan of Study

Central Campus

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| Second Term |
| AUMT 1407 | Automotive Electrical Systems | 4 |
| AUMT 2421 | Automotive Electrical Diagnosis and Repair | 4 |
| AUMT 2188 | Internship - Automotive Technology | 1 |
| Credits | | 9 |

| Summer Year One Term |
| AUMT 1345 | Automotive Climate Control Systems | 3 |
| AUMT 1319 | Automotive Engine Repair | 3 |
| Credits | | 6 |

| Third Term |
| AUMT 2417 | Automotive Engine Performance Analysis I | 4 |
| AUMT 2434 | Automotive Engine Performance Analysis II | 4 |
| AUMT 2288 | Internship - Automotive Technology | 2 |
| Credits | | 10 |

| Fourth Term |
| AUMT 2413 | Manual Drivetrain and Axles | 4 |
| AUMT 2425 | Automotive Automatic Transmission and Transaxles | 4 |
| AUMT 2289 | Internship - Automotive Technology | 2 |
| Credits | | 10 |

Total Credits 45

Capstone Experience: AUMT 2289 Internship - Automotive Technology

Eligible for credentialing exam

Note: Applicants must meet the admission requirements for San Jacinto College.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved by the Department Chair.
Auto Tech, Mopar College Automotive Program (CAP), Associate of Applied Science

Program Information

Are you looking to shift your career into high gear? If so, look no further than the MOPAR CAP Chrysler automotive technology program at San Jacinto College. Cars and trucks are much more complex than they used to be, increasingly relying on complicated computer systems and electronics for operation. At San Jacinto College, you will get the right training on a variety of makes to excel in the ever-changing and always exciting field of automotive technology. The MOPAR CAP Chrysler program opens students to several exciting career avenues, including service technician, parts counter, service writer, shop foreman, service manager, and car sales—all areas that reward strong talent.

The MOPAR CAP Chrysler automotive technology program:

- Offers hands-on training to learn the automotive fundamentals for Chrysler vehicles including Dodge, Jeep, Ram, and Fiat;
- Provides course materials, and the opportunity to Earn While You Learn as students are also employed as dealer technicians while completing the program;
- Allows students to earn credits in the Chrysler Academy Technical Training Curriculum;
- Gives students experience needed to prepare for the Automotive Service Excellence exam;
- Trains in diesel repair; and
- Provides training manuals at no cost to students, for a savings of up to $480.

Career Opportunities

The Automotive Technology MOPAR CAP Chrysler program prepares students for careers in dealerships as:

- Service technicians,
- Parts counter persons,
- Service writers, and
- Car salesmen.

Earning Potential

Automotive Service Technicians and Mechanics median salary: $47,259 per year

Source: texaswages.com, Gulf Coast region, 2017

For more information, please contact 281-998-6150, x1521.

Campus(es)

Central Campus

Information

The 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 learn 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. If you are training on 10 year old vehicles your training is 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.

Plan of Study

Central Campus

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Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts) 3

Summer Year One Term
AUMT 2313 Automotive Drivetrain and Axles 3
AUMT 1345 Automotive Climate Control Systems 3

Credits 15

Third Term
AUMT 2417 Automotive Engine Performance Analysis I 4
AUMT 2425 Automotive Automatic Transmission and Transaxles 4
AUMT 2288 Internship - Automotive Technology 2
ENGL 1301 Composition I 3

Credits 6

Fourth Term
AUMT 1419 Automotive Engine Repair 4
AUMT 2434 Automotive Engine Performance Analysis II 4
AUMT 2288 Internship - Automotive Technology 2
MATH 1332 Contemporary Mathematics (Quantitative Reasoning) (or higher) or MATH 1314 College Algebra 3

Credits 13

Total Credits 60

Capstone Experience: AUMT 2288 Internship - Automotive Technology; Eligible for credentialing exams

Note: Applicants must meet the admission requirements for San Jacinto College.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved by the Department Chair.

Auto Tech, Mopar College Automotive Program (CAP), Level 2 Certificate of Technology

Always exciting field of automotive technology. The MOPAR CAP Chrysler program opens students to several exciting career avenues, including service technician, parts counter, service writer, shop foreman, service manager, and car sales—all areas that reward strong talent.

The MOPAR CAP Chrysler automotive technology program:

• Offers hands-on training to learn the automotive fundamentals for Chrysler vehicles including Dodge, Jeep, Ram, and Fiat;
• Provides course materials, and the opportunity to Earn While You Learn as students are also employed as dealer technicians while completing the program;
• Allows students to earn credits in the Chrysler Academy Technical Training Curriculum;
• Gives students experience needed to prepare for the Automotive Service Excellence exam;
• Trains in diesel repair; and
• Provides training manuals at no cost to students, for a savings of up to $480.

Career Opportunities

The Automotive Technology MOPAR CAP Chrysler program prepares students for careers in dealerships as:

• Service technicians,
• Parts counter persons,
• Service writers, and
• Car salesmen.

Earning Potential

Automotive Service Technicians and Mechanics median salary: $47,259 per year\(^1\)

\(^1\) Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-998-6150, x1521.

Campus(es)
Central Campus

Information

The Mopar CAP Level 2 certificate prepares individuals for entry level employment as automotive service technicians. San Jacinto College can provide 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 require 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.

Plan of Study
Central Campus

Program Information

Are you looking to shift your career into high gear? If so, look no further than the MOPAR CAP Chrysler automotive technology program at San Jacinto College. Cars and trucks are much more complex than they used to be, increasingly relying on complicated computer systems and electronics for operation. At San Jacinto College, you will get the right training on a variety of makes to excel in the ever-changing and
### Auto Tech, Toyota Technician Training & Education Network (T-TEN) Program, Associate of Applied Science

#### Program Information

Are you looking to shift your career into high gear? Look no further than the Toyota Technician Training & Education Network (T-TEN) at San Jacinto College. Cars and trucks are much more complex than they used to be, increasingly relying on complicated computer systems and electronics for operation. At San Jacinto College, you can get the right training you need to excel in the ever-changing and always exciting field of automotive technology. Our T-TEN program strives to ensure student success, create seamless transition opportunities, and enrich the quality of life in the community we serve.

The T-TEN program at San Jacinto College:

- Is a partnership between Toyota, San Jacinto College, and the local Toyota and Lexus dealerships. It is recognized as a premier program in the global automotive industry for training and placement of factory trained technicians for the Toyota and Lexus dealerships;
- Is focused on training and developing quality technicians who are in demand by combining classroom study and hands-on dealership experience. Upon graduation from the T-TEN program, the student will receive an Associate of Applied Science (AAS) degree or Level 2 Certificate, ASE Certifications, and Toyota Factory Training certifications;
- Offers students hands-on high-tech training on late model Toyota and Lexus vehicles in a state-of-the-art facility. Students will also get discounts on professional tools, obtain air conditioning licenses and be well prepared for ASE certifications; and
- Helps aspiring technicians get the training they need to begin an interesting and rewarding career quickly.

#### Program Acceptance Requirements

Admission to the T-TEN program requires:

- Valid Texas driver’s license;
- Valid Social Security number or work permit;
- Clean driving record;
- Clean criminal background record;

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### Course Title Credits

#### First Term

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**Total Credits**: 45

**Capstone Experience**: AUMT 2288 Internship - Automotive Technology

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**Eligible for credentialing exams**

*Note: Applicants must meet the admission requirements for San Jacinto College.*

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved by the Department Chair.
• Clean drug test;
• Entrance interview with the program coordinator.

Career Opportunities
The T-TEN program prepares students for an exciting career in Toyota or Lexus dealerships as Factory Certified Toyota/Lexus Technicians. Students will begin working as entry-level service technicians while on internships with the opportunity to work full time after graduation. T-TEN graduates thrive in a high-paying career working on some of the leading vehicles in the country.

Salary varies based on certifications and experience.

For more information, contact 281-998-6150, x1137

Campus(es)
Central Campus

Toyota Technician & Education Network Program (T-TEN)
Toyota Technician Training and Education Network (T-TEN) streamlines the path to becoming a highly trained automotive technician to less than two years. In Toyota T-TEN you will alternate between San Jacinto College, a Toyota T-TEN College and hands-on work experience at your sponsoring dealership. Toyota T-TEN 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 North America, Inc., requires Toyota T-TEN instructors to have the latest high-tech training available. Toyota T-TEN 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 North America, Inc., donates new vehicles to its Toyota T-TEN 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 T-TEN programs including San Jacinto College are accredited by the Automotive Service Excellence Education Foundation (ASEEF). This accreditation ensures that your training will meet or exceed industry standards. All Toyota T-TEN instructors must be certified by the National Institute for Automotive Service Excellence (ASE) before they are allowed to teach in any Toyota T-TEN classroom. You deserve to be trained by the best. Students interested in the Toyota TTEN program are required to meet with the T-TEN coordinator or department chair before registering for automotive classes.

Plan of Study
Central Campus

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Summer Year One Term

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Total Credits 60

Capstone Experience: AUMT 2288 Internship - Automotive Technology; Eligible for credentialing exam

Note: Applicants must meet the admission requirements for San Jacinto College.

Department-specific courses must be taken in sequence and may have a prerequisite course.

Exceptions must be approved by the Department Chair.
Auto Tech, Toyota Technician Training & Education Network (T-TEN) Program, Level 2 Certificate

Program Information

Are you looking to shift your career into high gear? Look no further than the Toyota Technician Training & Education Network (T-TEN) at San Jacinto College. Cars and trucks are much more complex than they used to be, increasingly relying on complicated computer systems and electronics for operation. At San Jacinto College, you can get the right training you need to excel in the ever-changing and always exciting field of automotive technology. Our T-Ten program strives to ensure student success, create seamless transition opportunities, and enrich the quality of life in the community we serve.

The T-TEN program at San Jacinto College:

- Is a partnership between Toyota, San Jacinto College, and the local Toyota and Lexus dealerships. It is recognized as a premier program in the global automotive industry for training and placement of factory trained technicians for the Toyota and Lexus dealerships;
- Is focused on training and developing quality technicians who are in demand by combining classroom study and hands-on dealership experience. Upon graduation from the T-TEN program, the student will receive an Associate of Applied Science (AAS) degree or Level 2 Certificate, ASE Certifications, and Toyota Factory Training certifications;
- Offers students hands-on high-tech training on late model Toyota and Lexus vehicles in a state-of-the-art facility. Students will also get discounts on professional tools, obtain air conditioning licenses and be well prepared for ASE certifications; and
- Helps aspiring technicians get the training they need to begin an interesting and rewarding career quickly.

Program Acceptance Requirements

Admission to the T-TEN program requires:

- Valid Texas driver’s license;
- Valid Social Security number or work permit;
- Clean driving record;
- Clean criminal background record;
- Clean drug test;
- Entrance interview with the program coordinator.

Career Opportunities

The T-TEN program prepares students for an exciting career in Toyota or Lexus dealerships as Factory Certified Toyota/Lexus Technicians. Students will begin working as entry-level service technicians while on internships with the opportunity to work full time after graduation. T-TEN graduates thrive in a high-paying career working on some of the leading vehicles in the country.

Salary varies based on certifications and experience.

For more information, contact 281-998-6150, x1137

Campus(es)

Central Campus

Toyota Technician & Education Network Program (T-TEN)

Toyota Technician Training and Education Network (T-TEN) streamlines the path to becoming a highly trained automotive technician to less than two years. In Toyota T-TEN you will alternate between San Jacinto College, a Toyota T-TEN College and hands-on work experience at your sponsoring dealership. Toyota T-TEN 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 North America, Inc., requires Toyota T-TEN instructors to have the latest high-tech training available. Toyota T-TEN 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 North America, Inc., donates new vehicles to its Toyota T-TEN 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 T-TEN programs including San Jacinto College are accredited by the Automotive Service Excellence Education Foundation (ASEEF). This accreditation ensures that your training will meet or exceed industry standards. All Toyota T-TEN instructors must be certified by the National Institute for Automotive Service Excellence (ASE) before they are allowed to teach in any Toyota T-TEN classroom. You deserve to be trained by the best. Students interested in the Toyota TTEN program are required to meet with the T-TEN coordinator or department chair before registering for automotive classes.

Plan of Study

Central Campus

5AUTO-TTEN

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Credits 10

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<td>Automotive Suspension and Steering</td>
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Program Information

Are you a car lover or gearhead? Does nothing get your motor going like a beautiful vehicle? If so, San Jacinto College’s auto collision repair program may be your dream come true. As collision repair shops are typically backlogged with vehicles needing the attention of skilled technicians, you can help fill the void by entering this rapidly growing field. At San Jacinto College, you will gain the skills to become a body or frame technician or a painter or enter related fields such as insurance and estimation, paint retail, and new and used parts. If you have a love for art and automobiles, combine them in our advanced courses. We’ll train you to enter the exciting, flashy world of custom bodywork, custom paint and airbrush, and more!

Automotive Collision Repair Technology Management Specialty, Associate of Applied Science

The San Jacinto College auto collision repair program:

- Gives students the opportunity to learn the skills necessary to repair and refinish collision-damaged automobiles following nationally recognized training standards;
- Trains students in custom painting, layout and design, air brush, metal fabricating, and many other exciting skills used in the world of custom bike, truck, and car building;
- Offers labs based on the highest industry standards and is a member of the Inter-industry Conference on Auto Collision Repair (I-CAR) Industry Training Alliance; and
- Is taught by instructors who are Automotive Service Excellence (ASE) and I-CAR certified and maintain many other training certificates to ensure students are getting the most current repair procedures.

Additional Information

At San Jacinto College, students may also choose to specialize in auto painting, auto repair assistant, auto collision repair management, and auto non-collision repair technology.

Career Opportunities

Students graduating from the auto collision repair technology program pursue careers as:

- Painters
- Body technicians
- Frame technicians
- New and used car make ready technicians
- Paint retail technicians
- Parts technicians: new, aftermarket and used
- Insurance estimators
- Collision office employees
- Custom body work/custom paint/air brushers

Earning Potential

Automotive Body and Related Repairers median salary: $36,531

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact 281-998-6150, x7242 or email Gail.Mason@sjcd.edu.

Campus

North Campus

Plan of Study

North Campus

3ABCR-MGT

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| Credits | 19 |

| Total Credits | 60 |

**Capstone Experience:** ABDR 2257 Collision Shop Management

### Automotive Collision Repair Technology Management Specialty, Certificate of Technology

**Program Information**
Are you a car lover or gearhead? Does nothing get your motor going like a beautiful vehicle? If so, San Jacinto College’s auto collision repair program may be your dream come true. As collision repair shops are typically backlogged with vehicles needing the attention of skilled technicians, you can help fill the void by entering this rapidly growing field. At San Jacinto College, you will gain the skills to become a body or frame technician or a painter or enter related fields such as insurance and estimation, paint retail, and new and used parts. If you have a love for art and automobiles, combine them in our advanced courses. We’ll train you to enter the exciting, flashy world of custom bodywork, custom paint and airbrush, and more!

The San Jacinto College auto collision repair program:
- Gives students the opportunity to learn the skills necessary to repair and refinish collision-damaged automobiles following nationally recognized training standards;
- Trains students in custom painting, layout and design, air brush, metal fabricating, and many other exciting skills used in the world of custom bike, truck, and car building;
- Offers labs based on the highest industry standards and is a member of the Inter-industry Conference on Auto Collision Repair (I-CAR) Industry Training Alliance; and
- Is taught by instructors who are Automotive Service Excellence (ASE) and I-CAR certified and maintain many other training certificates to ensure students are getting the most current repair procedures.

### Additional Information
At San Jacinto College, students may also choose to specialize in auto painting, auto repair assistant, auto collision repair management, and auto non-collision repair technology.

### Career Opportunities
Students graduating from the auto collision repair technology program pursue careers as:
- Painters
- Body technicians
- Frame technicians
- New and used car make ready technicians
- Paint retail technicians
- Parts technicians: new, aftermarket and used
- Insurance estimators
- Collision office employees
- Custom body work/custom paint/air brushers

### Earning Potential
Automotive Body and Related Repairers median salary: $36,531

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact 281-998-6150, x7242 or email Gail.Mason@sjcd.edu.

### Campus
North Campus

### Plan of Study
North Campus
4ABCR-MGT
Automotive Collision Repair Technology, Associate of Applied Science

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<tr>
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<td>Major Collision Repair and Panel Replacement</td>
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<td>Color Analysis and Paint Matching</td>
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<td>ABDR 2502</td>
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Capstone Experience: ABDR 2257 Collision Shop Management

Automotive Collision Repair Technology, Associate of Applied Science

Program Information

Are you a car lover or gearhead? Does nothing get your motor going like a beautiful vehicle? If so, San Jacinto College’s auto collision repair program may be your dream come true. As collision repair shops are typically backlogged with vehicles needing the attention of skilled technicians, you can help fill the void by entering this rapidly growing field. At San Jacinto College, you will gain the skills to become a body or frame technician or a painter or enter related fields such as insurance and estimation, paint retail, and new and used parts. If you have a love for art and automobiles, combine them in our advanced courses. We’ll train you to enter the exciting, flashy world of custom bodywork, custom paint and airbrush, and more!

The San Jacinto College auto collision repair program:
- Gives students the opportunity to learn the skills necessary to repair and refinish collision-damaged automobiles following nationally recognized training standards;
- Trains students in custom painting, layout and design, air brush, metal fabricating, and many other exciting skills used in the world of custom bike, truck, and car building;
- Offers labs based on the highest industry standards and is a member of the Inter-industry Conference on Auto Collision Repair (I-CAR) Industry Training Alliance; and
- Is taught by instructors who are Automotive Service Excellence (ASE) and I-CAR certified and maintain many other training certificates to ensure students are getting the most current repair procedures.

Additional Information

At San Jacinto College, students may also choose to specialize in auto painting, auto repair assistant, auto collision repair management, and auto non-collision repair technology.

Career Opportunities

Students graduating from the auto collision repair technology program pursue careers as:
- Painters
- Body technicians
- Frame technicians
- New and used car make ready technicians
- Paint retail technicians
- Parts technicians: new, aftermarket and used
- Insurance estimators
- Collision office employees
- Custom body work/custom paint/air brushers

Earning Potential

Automotive Body and Related Repairers median salary: $36,531

1 Source: texasswages.com, Gulf Coast region, 2017

For more information, contact 281-998-6150, x7242 or email Gail.Mason@sjcd.edu.

Campus

North Campus

Information

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.

Plan of Study

North Campus

3ABDR-CR
**Course Title Credits**

**First Term**
- ABDR 1519 Basic Metal Repair 5
- ABDR 1307 Collision Repair Welding 3
- ABDR 1431 Basic Refinishing 4
- ABDR 1303 Vehicle Design and Structural Analysis 3

**Second Term**
- ABDR 2541 Major Collision Repair and Panel Replacement 5
- ABDR 2353 Color Analysis and Paint Matching 3
- ABDR 1315 Vehicle Trim and Hardware 3
- ABDR 1441 Structural Analysis and Damage Report I 4

**Third Term**
- Social and Behavioral Sciences or Government/Political Science or American History 3
- ENGL 1301 Composition I 3
- ABDR 1449 Automotive Plastic and Sheet Molding Compound Repair 4
- Speech 3
- MATH 1332 or MATH 1314 Contemporary Mathematics (Quantitative Reasoning) (or higher) or College Algebra 3

**Fourth Term**
- ABDR 2380 or ABDR 1323 Cooperative Education - Autobody/Collision and Repair Technology or Front and Rear Wheel Alignment 3
- Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts) 3
- ABDR 2502 Auto Body Mechanical and Electrical Service 5
- ENGL 2311 or ENGL 1302 Technical and Business Writing or Composition II 3

**Capstone Experience:** ABDR 2380 Cooperative Education - Autobody/Collision and Repair Technology or ABDR 1323 Front and Rear Wheel Alignment

**Total Credits:** 60

**Program Information**

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**Additional Information**

At San Jacinto College, students may also choose to specialize in auto painting, auto repair assistant, auto collision repair management, and auto non-collision repair technology.

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**Earning Potential**

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¹ Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact 281-998-6150, x7242 or email Gail.Mason@sjcd.edu.

**Campus**

North Campus
Plan of Study

Automotive Collision, Automotive Painting Specialty, Occupational Certificate

North Campus
4ABCR-CR

Course     Title                              Credits
-------------    -------------------------------------    ----
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

Credits                                                15

Second Term
ABDR 2541      Major Collision Repair and Panel Replacement       5
ABDR 1441      Structural Analysis and Damage Report I            4
ABDR 2353      Color Analysis and Paint Matching                  3
ABDR 1315      Vehicle Trim and Hardware                          3

Credits                                                15

Third Term
ABDR 1449      Automotive Plastic and Sheet Molding Compound Repair 4
ABDR 2502      Auto Body Mechanical and Electrical Service          5
ABDR 2380 or ABDR 1323   Cooperative Education - Autobody/Collision and Repair Technology or Front and Rear Wheel Alignment 3

Credits                                                12
Total Credits                                           42

Capstone Experience: ABDR 2380 Cooperative Education - Autobody/ Collision and Repair Technology or ABDR 1323 Front and Rear Wheel Alignment

Program Information

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• Custom body work/custom paint/air brushers

Earning Potential

Automotive Body and Related Repairers median salary: $36,531 1

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

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Campus

North Campus
Plan of Study

Course | Title | Credits
--- | --- | ---
ABDR 1431 | Basic Refinishing | 4
ABDR 1558 | Intermediate Refinishing | 5
ABDR 2551 | Specialized Refinishing Techniques | 5
ABDR 2549 | Advanced Refinishing | 5

Credits | 19
--- | ---

Total Credits | 19
--- | ---

Capstone Experience: ABDR 2551 Specialized Refinishing Techniques

Automotive Collision, Non-Collision Repair, Certificate of Technology

Program Information
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- Collision office employees
- Custom body work/custom paint/air brushers

Earning Potential
Automotive Body and Related Repairers median salary: $36,531

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

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Campus
North Campus
Plan of Study

Course | Title | Credits
--- | --- | ---
ABDR 1519 | Basic Metal Repair | 5
ABDR 1558 | Intermediate Refinishing | 5
ABDR 1431 | Basic Refinishing | 4

Credits | 14
--- | ---

Second Term

Course | Title | Credits
--- | --- | ---
ABDR 1555 | Non-Structural Metal Repair | 5
ABDR 1303 | Vehicle Design and Structural Analysis | 3
ABDR 2549 | Advanced Refinishing | 5

Credits | 13
--- | ---

Total Credits | 27
--- | ---

Capstone Experience: ABDR 2549 Advanced Refinishing
Automotive Collision, Repair Assistant, Occupational Certificate

Program Information
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• Parts technicians: new, aftermarket and used
• Insurance estimators
• Collision office employees
• Custom body work/custom paint/air brushes

Earning Potential
Automotive Body and Related Repairers median salary: $36,531

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact 281-998-6150, x7242 or email Gail.Mason@sjcd.edu.

Campus
North Campus

Plan of Study
North Campus
6ACRT-AST

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Capstone Experience: ABDR 2541 Major Collision Repair and Panel Replacement

Biomedical Clinical Equipment Technician, Associate of Applied Science

Program Information
Are you a hands-on kind of person with a technical mind? If so, San Jacinto College's biomedical equipment technology program might be the path for you. Biomedical clinical equipment technicians are essential
to the medical field. Technicians must have the skills necessary to repair and replace, test and calibrate, and perform preventative maintenance. They must also facilitate training sessions on medical equipment such as patient monitors, defibrillators, medical imaging equipment, and more.

The San Jacinto College biomedical clinical equipment technician program:

- Provides quality training in computer and electronics technology in today's medical equipment operation and repair;
- Offers an occupational certificate that will start to build a foundation for developing an understanding in medical equipment and computer and electronics operation and repair; and
- Teaches students 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.

**Career Opportunities**

Professionals with an associate degree and at least two years of work experience can become a certified Biomedical Equipment Technician (CBET) through the Association for the Advancement of Medical Instrumentation (AAMI).

**Earning Potential**

Medical Equipment Repairer Median Salary: $43,588 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-998-6150, x3587

**Campus(es)**

South Campus

**Information**

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 associate degrees in biomedical equipment technology should have the best job opportunities. Biomedical equipment repair technicians are most commonly employed by hospitals or clinics, private companies and the military. Biomedical equipment 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 Repair 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 Repair 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 (AAS). 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 AAS degree.

**Plan of Study**

**South Campus**

3BIOMD-CET

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<td>ITSC 1309 or BCIS 1305</td>
<td>Integrated Software Applications I or Business Computer Applications</td>
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Credits 15

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<td>Diagnostic Ultrasound Imaging Systems</td>
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<td>Medical Electronic Applications</td>
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Credits 15

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Credits 3

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Credits 81
Career Opportunities

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Earning Potential

Medical Equipment Repairer Median Salary: $43,588 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

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Campus(es)

South Campus

Information

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 associate degrees in biomedical equipment technology should have the best job opportunities. Biomedical equipment repair technicians are most commonly employed by hospitals or clinics, private companies and the military. Biomedical equipment 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 Repair 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 Repair 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 (AAS). 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 AAS degree.

Plan of Study

South Campus

4BIOMD-CET

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<tr>
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<td>CETT 1302</td>
<td>Electricity Principles</td>
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<td>ITSC 1309 or BCIS 1305</td>
<td>Integrated Software Applications I or Business Computer Applications</td>
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<td><strong>Credits</strong></td>
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<tr>
<td>BIOM 1315</td>
<td>Medical Equipment Networks</td>
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<td>BIOM 1341</td>
<td>Medical Circuits Troubleshooting</td>
<td>3</td>
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<td>BIOM 1350</td>
<td>Diagnostic Ultrasound Imaging Systems</td>
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<td>Medical Electronic Applications</td>
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<td>BIOM 2311</td>
<td>General Medical Equipment I</td>
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<tr>
<td>BIOM 2389</td>
<td>Internship - Biomedical Technology/Technician</td>
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</table>

Capstone Experience: BIOM 2389 Internship - Biomedical Technology/Technician

The San Jacinto College biomedical clinical equipment technician program:

- Provides quality training in computer and electronics technology in today’s medical equipment operation and repair;
- Offers an occupational certificate that will start to build a foundation for developing an understanding in medical equipment and computer and electronics operation and repair; and
- Teaches students 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.

Career Opportunities

Professionals with an associate degree and at least two years of work experience can become a certified Biomedical Equipment Technician (CBET) through the Association for the Advancement of Medical Instrumentation (AAMI).

Earning Potential

Medical Equipment Repairer Median Salary: $43,588 per year

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-998-6150, x3587

Campus(es)

South Campus

Information

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 associate degrees in biomedical equipment technology should have the best job opportunities. Biomedical equipment repair technicians are most commonly employed by hospitals or clinics, private companies and the military. Biomedical equipment 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 Repair 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

Program Information

Are you a hands-on kind of person with a technical mind? If so, San Jacinto College’s biomedical equipment technology program might be the path for you. Biomedical clinical equipment technicians are essential to the medical field. Technicians must have the skills necessary to repair and replace, test and calibrate, and perform preventative maintenance. They must also facilitate training sessions on medical equipment such as patient monitors, defibrillators, medical imaging equipment, and more.
Equipment Repair 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 (AAS). 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 AAS degree.

Plan of Study

South Campus
5BIOMD-CET

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</table>

Capstone Experience: BIOM 2343 General Medical Equipment II

Program Information

Are you a hands-on kind of person with a technical mind? If so, San Jacinto College's biomedical equipment technology program might be the path for you. Biomedical clinical equipment technicians are essential to the medical field. Technicians must have the skills necessary to repair and replace, test and calibrate, and perform preventative maintenance. They must also facilitate training sessions on medical equipment such as patient monitors, defibrillators, medical imaging equipment, and more.

The San Jacinto College biomedical clinical equipment technician program:

- Provides quality training in computer and electronics technology in today's medical equipment operation and repair;
- Offers an occupational certificate that will start to build a foundation for developing an understanding in medical equipment and computer and electronics operation and repair; and
- Teaches students 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.

Career Opportunities

Professionals with an associate degree and at least two years of work experience can become a certified Biomedical Equipment Technician (CBET) through the Association for the Advancement of Medical Instrumentation (AAMI).

Earning Potential

Medical Equipment Repairer Median Salary: $43,588 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-998-6150, x3587

Campus(es)

South Campus

Information

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 associate degrees in biomedical equipment technology should have the best job opportunities. Biomedical equipment repair technicians are most commonly employed by hospitals or clinics, private companies and the military. Biomedical equipment 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 Repair 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 Repair Technology and gained two years of work experience in the field, you are eligible for certification.

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**Plan of Study**

**South Campus**

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<td>or BCIS 1305</td>
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</table>

**Capstone Experience:** BIOM 2301 Safety in Health Care Facilities

**Construction Management Technology, Associate of Applied Science**

**Program Information**

Were you born with a take-charge attitude and a passion for building? Are you a natural-born leader with an interest in commercial and industrial planning? If so, then a career in construction management may be the right path for you.

The San Jacinto College Construction Management program:

- Is designed 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;
- Allows students to participate in the conceptual development and organization of a construction project, pricing and procurement, cost scheduling, and the overseeing of its organization, estimating, scheduling, and the implementation of the project; and
- Offers courses covering material familiarization, specialized construction fields such as civil, carpentry, mechanical, piping and plumbing systems, electrical/electronic, building envelopes, legal contracts, codes, permit processes, and state identities with an understanding of the green elements of each.

**Career Opportunities**

Graduates of San Jacinto College's Construction Management program have the opportunity to work as:

- Project managers,
- Superintendents,
- Estimators,
- Assistant project managers,
- Assistant superintendents,
- Project engineers,
Construction Management, Certificate of Technology

• Field engineers, and
• Safety engineers.

As Houston continues to grow, the construction management job outlook remains positive. The Gulf Coast area is expected to add an estimated 1,970 construction manager positions annually through 2022.¹

¹ Source: U.S. Bureau of Labor Statistics

Earning Potential

Construction manager median salary: $96,195 per year ¹


For more information, please contact 281-998-6150, x7765.

Campus

North Campus

Information

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 Safety and Health Administration (OSHA) 10-hour certification exam.

Plan of Study

North Campus

3CSTR-MGMT

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<td>CNBT 1311</td>
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<td>CNBT 2310</td>
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<td>Commercial/Industrial Blueprint Reading</td>
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<td>CNBT 2342</td>
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<td>Field Engineering I</td>
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San Jacinto College 2019-2020

CNBT 2315 Construction Specifications and Contracts 3
CNBT 1446 Construction Estimating I 4
ENGL 1301 Composition I 3

Credits 13

Third Term

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 or CNBT 2344 Practicum-Construction Technology or Construction Management II 3

Credits 15

Fourth Term

Speech 3
Social and Behavioral Sciences or Government/Political Science or American History 3
Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts) 3
BMGT 1301 Supervision 3
ENGL 2311 Technical and Business Writing 3

Credits 15

Total Credits 60

Capstone Experience: CNBT 2366 Practicum-Construction Technology or CNBT 2344 Construction Management II

Construction Management, Certificate of Technology

Program Information

Were you born with a take-charge attitude and a passion for building? Are you a natural-born leader with an interest in commercial and industrial planning? If so, then a career in construction management may be the right path for you.

The San Jacinto College Construction Management program:

• Is designed 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;
• Allows students to participate in the conceptual development and organization of a construction project, pricing and procurement, cost scheduling, and the overseeing of its organization, estimating, scheduling, and the implementation of the project; and
• Offers courses covering material familiarization, specialized construction fields such as civil, carpentry, mechanical, piping and plumbing systems, electrical/electronic, building envelopes, legal contracts, codes, permit processes, and state identities with an understanding of the green elements of each.

Career Opportunities

Graduates of San Jacinto College’s Construction Management program have the opportunity to work as:

• Project managers,
• Superintendents,
• Estimators,
• Assistant project managers,
• Assistant superintendents,
• Project engineers,
• Field engineers, and
• Safety engineers.

As Houston continues to grow, the construction management job outlook remains positive. The Gulf Coast area is expected to add an estimated 1,970 construction manager positions annually through 2022.

1 Source: U.S. Bureau of Labor Statistics

Earning Potential

Construction manager median salary: $96,195 per year


For more information, please contact 281-998-6150, x7765.

Campus

North Campus

Information

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 Safety and Health Administration (OSHA) 10-hour certification exam.

Plan of Study

North Campus

4CSTR-MGMT

Course | Title | Credits
--- | --- | ---
**First Term**
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

Credits | 11

**Second Term**
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

Credits | 14

**Third Term**
CNBT 2435 | Computer-Aided Construction Scheduling | 4
CNBT 2440 | Mechanical, Plumbing and Electrical Systems in Construction II | 4
CNBT 2366 or CNBT 2344 | Practicum-Construction Technology or Construction Management II | 3

Credits | 11

Total Credits | 36

Capstone Experience: CNBT 2366 Practicum-Construction Technology or CNBT 2344 Construction Management II

Electrical Technology

Communications and Alternative Energy, Enhanced Skills Certificate

Program Information

Have you considered a hands-on skill that is very much in demand throughout the Houston region? San Jacinto College’s electrical technology program is the answer. Homeowners, builders, and businesses rely on skilled electricians for repairs and new installations. A career as a journeyman or master electrician puts you in demand. Our programs help you master everything from simple residential wiring to complex commercial and industrial power and controls for the area’s petrochemical plants and business infrastructure.

The San Jacinto College electrical technology program:

• Uses a curriculum that prepares students to fill entry-level positions in residential, commercial, and industrial electrical fields;
• Prepares students for jobs in maintenance, design, marketing, estimating, and other electrical-related industries;
• Offers daytime and evening courses that enable apprentices to start accumulating the required on-the-job experience; and
• Prepares students for journeyman and master electrical exams.

Additional Information
The Texas Department of Licensing and Regulation (TDLR) requires an apprentice to have 8,000 hours of on-the-job experience to take the journeyman exam. A master electrician candidate must have 12,000 hours of verifiable experience.

Career Opportunities
According to the US Department of Labor, employment of electricians is expected to increase faster than average for all occupations through the year 2022. Increases in population and economy will provide a demand for more electricians to install and maintain electrical devices and wiring in homes, factories, offices, and other structures.

Experienced electricians can advance to jobs as:
• Supervisors,
• Project managers,
• Construction superintendents,
• Estimators,
• Electrical inspectors,
• Electrical contractors, and
• Master electricians.

Earning Potential
Electrician median salary: $54,599 per year


For more information, please contact Central campus, 281-478-2799, or North campus, 281-998-6150, x7346.

Program Information
Have you considered a hands-on skill that is very much in demand throughout the Houston region? San Jacinto College’s electrical technology program is the answer. Homeowners, builders, and businesses rely on skilled electricians for repairs and new installations. A career as a journeyman or master electrician puts you in demand. Our programs help you master everything from simple residential wiring to complex commercial and industrial power and controls for the area’s petrochemical plants and business infrastructure.

The San Jacinto College electrical technology program:
• Uses a curriculum that prepares students to fill entry-level positions in residential, commercial, and industrial electrical fields;
• Prepares students for jobs in maintenance, design, marketing, estimating, and other electrical-related industries;
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Experienced electricians can advance to jobs as:

• Supervisors,
• Project managers,
• Construction superintendents,
• Estimators,
• Electrical inspectors,
• Electrical contractors, and
• Master electricians.

Earning Potential
Electrician median salary: $54,599 per year


For more information, please contact Central campus, 281-478-2799, or North campus, 281-998-6150, x7346.

Campuses
Central Campus
North Campus

Information
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.

Plan of Study
Central and North Campuses
3ELEC

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<thead>
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<th>Title</th>
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<tr>
<td>First Term</td>
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<tr>
<td>ELPT 1215</td>
<td>Electrical Calculations I</td>
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<td>CETT 1302</td>
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<td>ELPT 1325</td>
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Capstone Experience: ELPT 2301 Journeyman Electrician Exam Review or ELPT 2364 Practicum-Electrical and Power Transmission Installation/Installer, General

Electrical Technology, Certificate of Technology

Program Information
Have you considered a hands-on skill that is very much in demand throughout the Houston region? San Jacinto College’s electrical technology program is the answer. Homeowners, builders, and businesses rely on skilled electricians for repairs and new installations. A career as a journeyman or master electrician puts you in demand. Our programs help you master everything from simple residential wiring to complex commercial and industrial power and controls for the area’s petrochemical plants and business infrastructure.

The San Jacinto College electrical technology program:

• Uses a curriculum that prepares students to fill entry-level positions in residential, commercial, and industrial electrical fields;
• Prepares students for jobs in maintenance, design, marketing, estimating, and other electrical-related industries;
• Offers daytime and evening courses that enable apprentices to start accumulating the required on-the-job experience; and
• Prepares students for journeyman and master electrical exams.
Additional Information

The Texas Department of Licensing and Regulation (TDLR) requires an apprentice to have 8,000 hours of on-the-job experience to take the journeyman exam. A master electrician candidate must have 12,000 hours of verifiable experience.

Career Opportunities

According to the US Department of Labor, employment of electricians is expected to increase faster than average for all occupations through the year 2022. Increases in population and economy will provide a demand for more electricians to install and maintain electrical devices and wiring in homes, factories, offices, and other structures.

Experienced electricians can advance to jobs as:

• Supervisors,
• Project managers,
• Construction superintendents,
• Estimators,
• Electrical inspectors,
• Electrical contractors, and
• Master electricians.

Earning Potential

Electrician median salary: $54,599 per year


For more information, please contact Central campus, 281-478-2799, or North campus, 281-998-6150, x7346.

Program Information

Have you considered a hands-on skill that is very much in demand throughout the Houston region? San Jacinto College’s electrical technology program is the answer. Homeowners, builders, and businesses rely on skilled electricians for repairs and new installations. A career as a journeyman or master electrician puts you in demand. Our programs help you master everything from simple residential wiring to complex commercial and industrial power and controls for the area’s petrochemical plants and business infrastructure.

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San Jacinto College 2019-2020
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- Electrical inspectors,
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Earning Potential

Electrician median salary: $54,599 per year\(^1\)


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Campuses

Central Campus
North Campus

Information

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.

Enhanced Skills Certificate

The enhanced skills certificate in Electrical Technology is designed for students who have completed the Electrical Technology Associate of Applied Science (AAS) degree.

Plan of Study

Central and North Campuses
ELEEC

Please see Electrical Technology, Associate of Applied Science (p. 89) page for more information.

Program Information

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Earning Potential
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Campuses
Central Campus
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Plan of Study
Central and North Campuses
5ELEC-TEC

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ELPT 2301 or ELPT 2364 Journeyman Electrician Exam Review or Practicum-Electrical and Power Transmission Installation/Installer, General 3

Credits 12

Total Credits 45

Capstone Experience: ELPT 2301 Journeyman Electrician Exam Review or ELPT 2364 Practicum-Electrical and Power Transmission Installation/Installer, General

Electrical Technology, Occupational Certificate

Program Information
Have you considered a hands-on skill that is very much in demand throughout the Houston region? San Jacinto College’s electrical technology program is the answer. Homeowners, builders, and businesses rely on skilled electricians for repairs and new installations. A career as a journeyman or master electrician puts you in demand. Our programs help you master everything from simple residential wiring to complex commercial and industrial power and controls for the area’s petrochemical plants and business infrastructure.

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• Prepares students for journeyman and master electrical exams.

Additional Information
The Texas Department of Licensing and Regulation (TDLR) requires an apprentice to have 8,000 hours of on-the-job experience to take the journeyman exam. A master electrician candidate must have 12,000 hours of verifiable experience.

Career Opportunities
According to the US Department of Labor, employment of electricians is expected to increase faster than average for all occupations through the year 2022. Increases in population and economy will provide a demand for more electricians to install and maintain electrical devices and wiring in homes, factories, offices, and other structures.
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- Project managers,
- Construction superintendents,
- Estimators,
- Electrical inspectors,
- Electrical contractors, and
- Master electricians.

**Earning Potential**

Electrician median salary: $54,599 per year


For more information, please contact Central campus, 281-478-2799, or North campus, 281-998-6150, x7346.

**Campuses**

Central Campus
North Campus

**Information**

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.

**Plan of Study**

**Central and North Campuses**

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<tr>
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</tbody>
</table>

**Capstone Experience:** ELPT 1345 Commercial Wiring

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**Electronics Technology, Associate of Applied Science**

**Program Information**

Has anyone ever called you tech-savvy? Are you passionate about technology? Do you find it thrilling that our computers, communications, databases, security systems, personal and corporate connectivity, and information networks are all intricately intertwined into a finely woven net that envelops the planet? If so, a degree in electronics technology is right for you. The San Jacinto College electronics technology program prepares you to work in electronics, industrial computing, VOIP switching, phone PBX, and a variety of other computer-related fields. With technology moving faster than ever, one thing is for certain: If you know computer electronics, your skills are in high demand!

The San Jacinto College computer electronics technology curriculum provides:

- Basic training for entry-level jobs in a variety of occupations in the field of electronics, telecommunications, automation, sensors, and computer engineering technology;
- A great foundation in the principles of electronics with an emphasis on digital electronics and computers; and
- A great training ground in advanced microprocessor applications and basic automation and robotics.

**Additional Information**

Graduates of 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.

**Career Opportunities**

With an associate degree in electronics technology, students can expect the following job opportunities:

- Electronics technicians,
- Field engineers,
- Support specialists,
- Medical equipment repair and calibration technicians,
- Oilfield electronics technicians,
- Computer networking technicians,
- Entertainment equipment repair technicians, and
- Simulator repair technicians.
Earning Potential

Electrical and electronics engineering technician median salary: $62,968 per year

Source: texasswages.com (http://texasswages.com), Gulf Coast region, 2017

For more information please contact 281-998-6150, x1835

Department Chair 281-478-2712

Campuses

Central Campus

Information

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.

Plan of Study

Central Campus

3ELECTRON

Course | Title | Credits
--- | --- | ---
First Term
CETT 1303 | DC Circuits | 3
CETT 1305 | AC Circuits | 3
CETT 1325 | Digital Fundamentals | 3
CETT 1349 | Digital Systems | 3
ITSC 1325 | Personal Computer Hardware | 3
Credits | | 15

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 1332 or MATH 1314 | Contemporary Mathematics (Quantitative Reasoning) (or higher) | 3
Credits | | 15

Third Term
FCEL 1305 | Fuel Cell and Alternative/Renewable Energy | 3
EECT 2339 | Communications Circuits | 3
ELMT 1305 | Basic Fluid Power | 3
ENGL 1301 | Composition I | 3

Electronics Technology, Certificate of Technology

Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts) | 3

Fourth Term
ELMT 2335 or EECT 2367 | Certified Electronics Technician Training or Practicum, (Field Experience) Electronic Technology/Technician | 3
Social and Behavioral Sciences or Government/Political Science or American History | 3
Speech | 3
Approved Elective (p. 94) | 3
Approved Elective (p. 94) | 3
Credits | | 15

Total Credits | | 60

1 Students planning to pursue a baccalaureate degree should enroll in MATH 1314 College Algebra.

Capstone Experience: ELMT 2335 Certified Electronics Technician Training, ELMT 2337 Electronic Troubleshooting Service and Repair or EECT 2367 Practicum, (Field Experience) Electronic Technology/Technician

Approved Electives

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<td>Certified Electronics Technician Training</td>
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<tr>
<td>ELMT 2341</td>
<td>Electromechanical Systems</td>
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Program Information

Has anyone ever called you tech-savvy? Are you passionate about technology? Do you find it thrilling that our computers, communications, databases, security systems, personal and corporate connectivity, and information networks are all intricately intertwined into a finely woven net that envelops the planet? If so, a degree in electronics technology is right for you. The San Jacinto College electronics technology program prepares you to work in electronics, industrial computing, VOIP switching, phone PBX, and a variety of other computer-related fields. With technology moving faster than ever, one thing is for certain: If you know computer electronics, your skills are in high demand!
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Additional Information

Graduates of 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.

Career Opportunities

With an associate degree in electronics technology, students can expect the following job opportunities:

- Electronics technicians,
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- Simulator repair technicians.

Earning Potential

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Campuses

Central Campus

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Certificate of Technology

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.

Plan of Study

Central Campus

4ELECTRON

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<tr>
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<td>AC Circuits</td>
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<td>CETT 1325</td>
<td>Digital Fundamentals</td>
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<td>CETT 1349</td>
<td>Digital Systems</td>
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<td>ITSC 1325</td>
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<td>ELMT 2337</td>
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</table>

Capstone Experience: ELMT 2337 Electronic Troubleshooting Service and Repair

Electronics Technology, Level 2 Certificate

Program Information

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Plan of Study

Central Campus

5ELEC

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<tr>
<td>CETT 1329</td>
<td>Solid State Devices</td>
<td>3</td>
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<tr>
<td>CETT 1357</td>
<td>Linear Integrated Circuits</td>
<td>3</td>
</tr>
<tr>
<td>RBTC 1355</td>
<td>Sensors and Automation</td>
<td>3</td>
</tr>
<tr>
<td>ELMT 2337</td>
<td>Electronic Troubleshooting Service and Repair</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 1314</td>
<td>or College Algebra</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Credits</strong></td>
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<tr>
<td>Third Term</td>
<td></td>
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<tr>
<td>FCEL 1305</td>
<td>Fuel Cell and Alternative/Renewable Energy</td>
<td>3</td>
</tr>
<tr>
<td>EECT 2339</td>
<td>Communications Circuits</td>
<td>3</td>
</tr>
<tr>
<td>ELMT 1305</td>
<td>Basic Fluid Power</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ELMT 2335</td>
<td>Certified Electronics Technician Training or Practicum, (Field Experience) Electronic Technology/Technician</td>
<td>3</td>
</tr>
<tr>
<td>or EECT 2367</td>
<td>or Practicum, (Field Experience) Electronic Technology/Technician</td>
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<tr>
<td>Approved Elective (p. 96)</td>
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</table>

Capstone Experience: ELMT 2337 Electronic Troubleshooting Service and Repair, or ELMT 2335 Certified Electronics Technician Training or EECT 2367 Practicum, (Field Experience) Electronic Technology/Technician

1 Students planning to pursue a baccalaureate degree should enroll in MATH 1314 College Algebra.

Approved Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ELMT 2333</td>
<td>Industrial Electronics</td>
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</tr>
<tr>
<td>ELMT 2341</td>
<td>Electromechanical Systems</td>
<td>3</td>
</tr>
</tbody>
</table>
Electronics Technology, Occupational Certificate

Program Information

Has anyone ever called you tech-savvy? Are you passionate about technology? Do you find it thrilling that our computers, communications, databases, security systems, personal and corporate connectivity, and information networks are all intricately intertwined into a finely woven net that envelops the planet? If so, a degree in electronics technology is right for you. The San Jacinto College electronics technology program prepares you to work in electronics, industrial computing, VOIP switching, phone PBX, and a variety of other computer-related fields. With technology moving faster than ever, one thing is for certain: If you know computer electronics, your skills are in high demand!

The San Jacinto College computer electronics technology curriculum provides:

- Basic training for entry-level jobs in a variety of occupations in the field of electronics, telecommunications, automation, sensors, and computer engineering technology;
- A great foundation in the principles of electronics with an emphasis on digital electronics and computers; and
- A great training ground in advanced microprocessor applications and basic automation and robotics.

Additional Information

Graduates of 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.

Career Opportunities

With an associate degree in electronics technology, students can expect the following job opportunities:

- Electronics technicians,
- Field engineers,
- Support specialists,
- Medical equipment repair and calibration technicians,
- Oilfield electronics technicians,
- Computer networking technicians,
- Entertainment equipment repair technicians, and
- Simulator repair technicians.

Earning Potential

Electrical and electronics engineering technician median salary: $62,968 per year

1

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information please contact 281-998-6150, x1835

Department Chair 281-478-2712

Campuses

Central Campus

Information

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.

Occupational Certificate

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.

Plan of Study

Central Campus

6ELCTRN-COMM

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
<td>CETT 1303</td>
<td>DC Circuits</td>
<td>3</td>
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<td>CETT 1305</td>
<td>AC Circuits</td>
<td>3</td>
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<tr>
<td>CETT 1325</td>
<td>Digital Fundamentals</td>
<td>3</td>
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<tr>
<td>CETT 1349</td>
<td>Digital Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1325</td>
<td>Personal Computer Hardware</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 15
Environmental Health and Safety Technology, Associate of Applied Science

Program Information

Is safety your number one priority? Are you analytical, cautious, and efficient? If so, a career in environmental health and safety technology may be the right path for you. This is a specialized branch of the health profession that focuses on the environment of workers. Environmental health and safety professionals strive to find and eliminate conditions in the workplace that may result in 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 San Jacinto College environmental health and safety technology program:

• Is multi-disciplinary in nature, providing students with relevant exposure to biological, chemical, physical, mathematical, and health sciences disciplines, as well as a thorough introduction to occupational health and safety concepts;
• Trains students to recognize common occupational safety concerns that deal with safety hazards involved with confined space entry, hazardous energy control, hazard communication, compliance with safety standards, environmental protection; and other areas; and
• Prepares students 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.

Additional Information

Our 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 Technologists (CCHES). CCHES 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, and to use the initials OHST after their names. Students may further their studies at a university leading toward Certified Safety Professional and/or Certified Industrial Hygienist.

Career Opportunities

An environmental health and safety manager heads the modern safety and health team. Depending on the size of the company and the commitment of its management, the teams include positions for:

• Safety/Environmental Specialists,
• Safety/Environmental Engineers,
• Industrial Hygienists,
• Risk Management Specialists,
• Health Physicists,
• Occupational Physicians, and
• Occupational Health Nurses.

The job of the environmental health and safety manager is complex and diverse focusing on analysis, prevention, planning, evaluation, promotion, and compliance. Educational requirements range from technical certificates to graduate degrees. Additional college majors held by practitioners include environmental science, occupational and environmental health and safety, industrial safety and health technology, industrial technology, industrial engineering technology, manufacturing technology, industrial management, and engineering technology.

Earning Potential

Occupational Health and Safety Technician median salary: $48,043 per year.1

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-476-1501, x1348.

Campus

Central Campus

Information

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 EHST 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 occupational 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). Students who complete the Associate of Applied Science
(AAS) degree in EHST may qualify to begin the examination process to eventually become a Certified Safety Professional (CSP) through the BCSP. Students may also complete course work at a number of upper-level universities leading toward additional certifications such as the Certified Industrial Hygienist (CIH) through the ABIH, the Certified Environmental Professional (CEP) through the National Association of Environmental Professionals (NAEP), the Certified Risk Manager (CRM) through the National Alliance for Insurance Education and Research (NAIER), and many others.

**Program Entry**

Environmental Health and Safety (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, x3686.

**Plan of Study**

**Central Campus**  
3ENVR-HLTH

<table>
<thead>
<tr>
<th>Course Term</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Term</td>
<td>EPCT 1307</td>
<td>Introduction to Environmental Safety and Health</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>OSHT 1309</td>
<td>Physical Hazards Control</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 1314</td>
<td>College Algebra (or higher)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CHEM 1311</td>
<td>General Chemistry I (lecture)</td>
<td>3</td>
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<tr>
<td></td>
<td>&amp; CHEM 1111</td>
<td>General Chemistry I (lab)</td>
<td>3</td>
</tr>
<tr>
<td></td>
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<td>Total Credits</td>
<td>16</td>
</tr>
</tbody>
</table>

| Second Term | OSHT 1313| Accident Prevention, Inspection and Investigation | 3       |
|             | OSHT 2320| Safety Training Presentation Techniques       | 3       |
|             | Speech   |                                             | 3       |
|             | Select one of the following: | 4       |
|             | CHEM 1312 & CHEM 1112| General Chemistry II (lecture) and General Chemistry II (lab) | 3       |
|             | BIOL 1306 & BIOL 1106| Biology for Science Majors I (lecture) and Biology for Science Majors I (lab) | 3       |
|             | BIOL 2301 & BIOL 2101| Human Anatomy and Physiology I (lecture) and Human Anatomy and Physiology I (lab) | 3       |
|             |          | Total Credits                              | 13      |

| Third Term  | EPCT 1341| Principles of Industrial Hygiene            | 3       |
|             | OSHT 2305| Ergonomics and Human Factors in Safety      | 3       |
|             | OSHT 1307| Construction Site Safety and Health        | 3       |
|             | ENGL 2311 or ENGL 1302| Technical and Business Writing or Composition II | 3 |
|             | Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts) | 3       |
|             |          | Total Credits                              | 15      |

**Fourth Term**  
EPCT 2333 Environmental Toxicology 3  
OSHT 2401 OSHA Regulations-General Industry 4  
OSHT 2309 Safety Program Management 3  
Approved Elective (p. 99) 3  
Social and Behavioral Sciences or Government/Political Science or American History 3  

| Credits | 16 |

**Total Credits**  
60

1 Students desiring to obtain a baccalaureate degree should take CHEM 1312 General Chemistry II (lecture)/CHEM 1112 General Chemistry II (lab).

**Capstone Experience:** OSHT 2309 Safety Program Management

**Approved Electives**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSP 1160 &amp; EMSP 1501</td>
<td>Clinical-Emergency Medical Technician and Emergency Medical Technician 1</td>
<td>6</td>
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<tr>
<td>EPCT 1301</td>
<td>Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics</td>
<td>3</td>
</tr>
<tr>
<td>EPCT 1305</td>
<td>Environmental Regulations Overview</td>
<td>3</td>
</tr>
<tr>
<td>EPCT 1311</td>
<td>Introduction to Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>EPCT 1313</td>
<td>Contingency Planning</td>
<td>3</td>
</tr>
<tr>
<td>OSHT 2380</td>
<td>Cooperative Education-Occupational Safety and Health Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Both courses required if used to satisfy the elective requirement for Environmental Health and Safety Technology and must be taken concurrently.

**Environmental Health and Safety Technology, Level 2 Certificate**

**Program Information**

Is safety your number one priority? Are you analytical, cautious, and efficient? If so, a career in environmental health and safety technology may be the right path for you. This is a specialized branch of the health profession that focuses on the environment of workers. Environmental health and safety professionals strive to find and eliminate conditions in the workplace that may result in 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 San Jacinto College environmental health and safety technology program:

- Is multi-disciplinary in nature, providing students with relevant exposure to biological, chemical, physical, mathematical, and health sciences disciplines, as well as a thorough introduction to occupational health and safety concepts;
- Trains students to recognize common occupational safety concerns that deal with safety hazards involved with confined space entry, hazardous energy control, hazard communication, compliance with safety standards, environmental protection; and other areas; and
- Prepares students 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.

Additional Information

Our 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 Technologists (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, and to use the initials OHST after their names. Students may further their studies at a university leading toward Certified Safety Professional and/or Certified Industrial Hygienist.

Career Opportunities

An environmental health and safety manager heads the modern safety and health team. Depending on the size of the company and the commitment of its management, the teams include positions for:

- Safety/Environmental Specialists,
- Safety/Environmental Engineers,
- Industrial Hygienists,
- Risk Management Specialists,
- Health Physicists,
- Occupational Physicians, and
- Occupational Health Nurses.

The job of the environmental health and safety manager is complex and diverse focusing on analysis, prevention, planning, evaluation, promotion, and compliance. Educational requirements range from technical certificates to graduate degrees. Additional college majors held by practitioners include environmental science, occupational and environmental health and safety, industrial safety and health technology, industrial technology, industrial engineering technology, manufacturing technology, industrial management, and engineering technology.

Earning Potential

Occupational Health and Safety Technician median salary: $48,043 per year.¹

For more information, please contact 281-476-1501, x1348.

Campus

Central Campus

Information

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.

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Plan of Study

Central Campus

5ENVR-HLTH

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
<td>EPCT 1307</td>
<td>Introduction to Environmental Safety and Health</td>
<td>3</td>
</tr>
<tr>
<td>OSHT 1309</td>
<td>Physical Hazards Control</td>
<td>3</td>
</tr>
</tbody>
</table>

¹ Source: texawages.com (http://texawages.com), Gulf Coast region, 2017
EPCT 1301 Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics 3
OSHT 1307 Construction Site Safety and Health 3
EPCT 1311 Introduction to Environmental Science 3
Credits 15

Second Term
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
Approved Elective (p. 101) 3
Credits 19
Total Credits 34

Capstone Experience: OSHT 2309 Safety Program Management

Approved Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>EMSP 1160 &amp; EMSP 1501</td>
<td>Clinical-Emergency Medical Technician and Emergency Medical Technician 1</td>
<td>6</td>
</tr>
<tr>
<td>EPCT 1313</td>
<td>Contingency Planning</td>
<td>3</td>
</tr>
<tr>
<td>OSHT 2380</td>
<td>Cooperative Education-Occupational Safety and Health Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Both courses are required if used to satisfy the elective requirement for Environmental Health and Safety Technology and must be taken concurrently.

Heavy Diesel Truck, Associate of Applied Science

Program Information

The diesel technology department at San Jacinto College is committed to teaching students this technology at industry level, while maintaining a close relationship with the diesel industry. We assist students with career options and job placement opportunities. The most important focus of this department is students and their knowledge acquisition.

The San Jacinto College diesel technology program:

- Is committed to teaching students technology at industry level, while maintaining a close relationship with the diesel industry;
- Teaches engine testing and repair, electrical systems, HVAC, power train, brake systems, safety, and more; and
- Offers an associate degree program that provides students the business background needed to open doors on the corporate and management sides of the industry.

Career Opportunities

Careers in diesel technology are at an all-time high. Most of our students are hired before graduation. Many students are recruited by companies and organizations such as:

- Cummins,
- Stewart & Stevenson,
- City of Houston,
- Penske Corporation, and
- Houston area truck dealers.

Earning Potential

Bus & Truck Mechanics & Diesel Engine Specialists median salary: $47,925 per year 1

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-998-6150, x7639.

Campus

North Campus

Associate of Applied Science Degree

The heavy diesel truck Associate of Applied Science (AAS) degree will prepare students for a career in the repair and maintenance of diesel engines with a focus on engines for over-the-road heavy duty diesel trucks. Topics of study will include: repair and maintenance, transmissions, fuel systems, brakes, and differentials. The state of Texas hires more diesel technicians than any other state with strong ties to the Port of Houston and the greater Gulf Coast petrochemical industry. An emphasis on academic essentials and industry soft skills will set the AAS degree student apart from certificate students.

Plan of Study

North Campus

3DESL-HTR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Term</td>
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<tr>
<td>DEMR 1301</td>
<td>Shop Safety and Procedures</td>
<td>3</td>
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<tr>
<td>DEMR 1306</td>
<td>Diesel Engine I</td>
<td>3</td>
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<td>DEMR 1405</td>
<td>Basic Electrical Systems</td>
<td>4</td>
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<tr>
<td>DEMR 1410</td>
<td>Diesel Engine Testing and Repair I</td>
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<tr>
<td>Credits</td>
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<td>Second Term</td>
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<td>DEMR 1413</td>
<td>Fuel Systems</td>
<td>4</td>
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<td>DEMR 1423</td>
<td>Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair</td>
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<td>DEMR 1317</td>
<td>Basic Brake Systems</td>
<td>3</td>
</tr>
<tr>
<td>DEMR 2432</td>
<td>Electronic Controls</td>
<td>4</td>
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<td>Credits</td>
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<td>Third Term</td>
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<tr>
<td>DEMR 1421</td>
<td>Power Train I</td>
<td>4</td>
</tr>
<tr>
<td>DEMR 2334</td>
<td>Advanced Diesel Tune-up and Troubleshooting</td>
<td>3</td>
</tr>
<tr>
<td>DEMR 2412</td>
<td>Diesel Engine Testing and Repair II</td>
<td>4</td>
</tr>
<tr>
<td>DEMR 2266</td>
<td>Field Experience-Diesel Mechanics 1</td>
<td>2</td>
</tr>
</tbody>
</table>

1 or DEMR 1229 or Preventative Maintenance
ENGL 1301 Composition I 3

Credits 16

Fourth Term

MATH 1332 Contemporary Mathematics (Quantitative or MATH 1314 Reasoning) (or higher) 3
or College Algebra

ENGL 2311 Technical and Business Writing 3
or ENGL 1302 or Composition II

Social and Behavioral Sciences or Government/Political Science or American History

Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts) 3

Speech 3

Credits 15

Total Credits 60

Capstone Experience: DEMR 2334 Advanced Diesel Tune-up and Troubleshooting

1 DEMR 1229 Preventative Maintenance is offered as a substitute course for DEMR 2266 Field Experience-Diesel Mechanics, if jobs are not available.

Heavy Diesel Truck, Certificate of Technology

Program Information

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1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-998-6150, x7639.

Campus

North Campus

Information

The heavy diesel truck certificate of technology will focus on the technical training required to enter the field of diesel technology in the repair and maintenance of over-the-road heavy duty diesel trucks. Topics of study will focus on the knowledge and technological skills to gain entry level employment.

Plan of Study

North Campus

4DESL-HTR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>DEMR 1405</td>
<td>Basic Electrical Systems</td>
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<td>DEMR 2334</td>
<td>Advanced Diesel Tune-up and Troubleshooting</td>
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Total Credits 42

Capstone Experience: DEMR 2334 Advanced Diesel Tune-up and Troubleshooting

1 DEMR 1229 Preventative Maintenance is offered as a substitute course for DEMR 2266 Field Experience-Diesel Mechanics, if jobs are not available.
HVAC, Commercial Air Conditioning Technology, Associate of Applied Science

Program Information
The heating, ventilating, air conditioning and refrigeration (HVACR) industry continues to technologically advance, especially in the areas of computerization and sophisticated control systems. Thus, there is an upward trend in the changing skill sets required for successful service technicians. If you’re passionate about progressive technology and are interested in a satisfying high-demand career based on skill, then the San Jacinto College air conditioning technology program is right for you.

The San Jacinto College air conditioning (HVACR) technology program:
• Is designed to provide students with the necessary skills required to become a state licensed independent business owner/contractor, or for employment in the industry as a technician in residential, commercial, and/or industrial air conditioning, refrigeration and heating; and
• Is made up of a curriculum that provides the basic preparation for entry-level jobs in the fields of air conditioning, refrigeration, and heating with initial focus on troubleshooting and service. As the student advances through the program, related topics of indoor air quality, load calculation, system design, and industry code standards are also covered.

Additional Information
The Fast Track to HVACR program allows students to complete an occupational certificate in just 16 weeks – one semester.

Upon completion of each certificate, students may become certified with the state by registering with the Texas Department of Licensing and Regulation (TDLR).

Career Opportunities
Graduates of the air conditioning program will enter a high demand field with excellent wage earning potential. Presently, industry advisors say the demand for technicians has a 10-year backlog, and a 21 percent growth rate, faster than the average for all occupations.

Graduates of the San Jacinto College air conditioning technology program have the opportunity to work as:
• Residential/commercial technicians,
• Industrial or maintenance technicians.

Earning Potential
Heating and air conditioning mechanic and installer median salary: $45,457 1

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

Campuses
North Campus
South Campus

For more information contact North campus at 281-998-6150, x7264; South campus at 281-998-6150, x3777.

Information
The Commercial Air Conditioning program is offered at the San Jacinto College North campus. The Residential Air Conditioning program is offered at the San Jacinto College South campus. Both programs offer an occupational certificate, a certificate of technology, and an Associate of Applied Science (AAS). The North campus offers the Level 2 certificate. All courses in each certificate apply to the commercial or residential AAS.

Associate of Applied Science Degree
The air conditioning technology program on the North campus is designed to train students with entry-level Heating Ventilation Air Conditioning and Refrigeration (HVAC/R) skills required for the field of commercial and industrial air conditioning, refrigeration, and heating. The greater Houston Gulf Coast area is generally considered to be the most air conditioned region in the world. Graduates will complete their training in the new Center for Industrial Technology and may use their knowledge and ability to become a state licensed independent business owner or find employment with the many companies looking for qualified technicians. Training includes the installation, repair, and maintenance of commercial and industrial air conditioning, refrigeration, and heating equipment.

Admission
No admission requirements.

Job entry requirements:
For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

Plan of Study
North Campus
3AIRC-C

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HVAC, Commercial Air Conditioning Technology, Certificate of Technology

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<td>Social and Behavioral Sciences or Government/Political Science or American History</td>
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<td>MATH 1332 or MATH 1314</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher) or College Algebra</td>
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<td>Speech</td>
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**Capstone Experience:** HART 2368 Practicum (or Field Experience) - HVAC/R Technology/Technician or HART 2338 Air Conditioning Installation and Startup

Program Information

The heating, ventilating, air conditioning and refrigeration (HVACR) industry continues to technologically advance, especially in the areas of computerization and sophisticated control systems. Thus, there is an upward trend in the changing skill sets required for successful service technicians. If you're passionate about progressive technology and are interested in a satisfying high-demand career based on skill, then the San Jacinto College air conditioning technology program is right for you.

The San Jacinto College air conditioning (HVACR) technology program:

- Is designed to provide students with the necessary skills required to become a state licensed independent business owner/contractor, or for employment in the industry as a technician in residential, commercial, and/or industrial air conditioning, refrigeration and heating; and
- Is made up of a curriculum that provides the basic preparation for entry-level jobs in the fields of air conditioning, refrigeration, and heating with initial focus on troubleshooting and service. As the student advances through the program, related topics of indoor air quality, load calculation, system design, and industry code standards are also covered.

Additional Information

The Fast Track to HVACR program allows students to complete an occupational certificate in just 16 weeks – one semester.

Upon completion of each certificate, students may become certified with the state by registering with the Texas Department of Licensing and Regulation (TDLR).

Career Opportunities

Graduates of the air conditioning program will enter a high demand field with excellent wage earning potential. Presently, industry advisors say the demand for technicians has a 10-year backlog, and a 21 percent growth rate, faster than the average for all occupations.

Graduates of the San Jacinto College air conditioning technology program have the opportunity to work as:

- Residential/commercial technicians,
- Industrial or maintenance technicians,
- Independent business owner or contractors, and
- Refrigeration technicians.

Earning Potential

Heating and air conditioning mechanic and installer median salary: $45,457

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

Campuses

North Campus
South Campus

For more information contact North campus at 281-998-6150, x7264; South campus at 281-998-6150, x3777.

Information

The Commercial Air Conditioning program is offered at the San Jacinto College North campus. The Residential Air Conditioning program is offered at the San Jacinto College South campus. Both programs offer an occupational certificate, a certificate of technology, and an Associate of Applied Science (AAS). The North campus offers the Level 2 certificate. All courses in each certificate apply to the commercial or residential AAS.

San Jacinto College 2019-2020
Certificate of Technology

The Commercial Air Conditioning Certificate of Technology is comprised of 32 semester credit hours and is designed for those wanting to complete the technical air conditioning technology courses required for a degree but want to enter the job market as soon as possible. All courses on this certificate apply to the associate of applied science degree.

Admission

No admission requirements.

Job entry requirements:

For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

Plan of Study

North Campus

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**Total Credits**: 32

Capstone Experience: HART 2368 Practicum (or Field Experience) - HVAC/R Technology/Technician or HART 2338 Air Conditioning Installation and Startup

HVAC, Commercial Air Conditioning Technology, Level 2 Certificate

Program Information

The heating, ventilating, air conditioning and refrigeration (HVACR) industry continues to technologically advance, especially in the areas of computerization and sophisticated control systems. Thus, there is an upward trend in the changing skill sets required for successful service technicians. If you’re passionate about progressive technology and are interested in a satisfying high-demand career based on skill, then the San Jacinto College air conditioning technology program is right for you.

The San Jacinto College air conditioning (HVACR) technology program:

• Is designed to provide students with the necessary skills required to become a state licensed independent business owner/contractor, or for employment in the industry as a technician in residential, commercial, and/or industrial air conditioning, refrigeration and heating; and
• Is made up of a curriculum that provides the basic preparation for entry-level jobs in the fields of air conditioning, refrigeration, and heating with initial focus on troubleshooting and service. As the student advances through the program, related topics of indoor air quality, load calculation, system design, and industry code standards are also covered.

Additional Information

The Fast Track to HVACR program allows students to complete an occupational certificate in just 16 weeks – one semester.

Upon completion of each certificate, students may become certified with the state by registering with the Texas Department of Licensing and Regulation (TDLR).

Career Opportunities

Graduates of the air conditioning program will enter a high demand field with excellent wage earning potential. Presently, industry advisors say the demand for technicians has a 10-year backlog, and a 21 percent growth rate, faster than the average for all occupations.

Graduates of the San Jacinto College air conditioning technology program have the opportunity to work as:

• Residential/commercial technicians,
• Industrial or maintenance technicians,
• Independent business owner or contractors, and
• Refrigeration technicians.
Earning Potential

Heating and air conditioning mechanic and installer median salary: $45,457

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

Campuses

North Campus
South Campus

For more information contact North campus at 281-998-6150, x7264; South campus at 281-998-6150, x3777.

Information

The Commercial Air Conditioning program is offered at the San Jacinto College North campus. The Residential Air Conditioning program is offered at the San Jacinto College South campus. Both programs offer an occupational certificate, a certificate of technology, and an Associate of Applied Science (AAS). The North campus offers the Level 2 certificate. All courses in each certificate apply to the commercial or residential AAS.

Level 2 Certificate

The Commercial Air Conditioning Level II Certificate is comprised of 45 semester credit hours and is designed for those wanting to complete the technical air conditioning technology courses required for a degree but want to enter the job market as soon as possible. All courses on this certificate apply to the Associate of Applied Science (AAS) degree.

Admission

No admission requirements.

Job entry requirements:

For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

Plan of Study

North Campus

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<td>HART 2442</td>
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Capstone Experience: HART 2368 Practicum (or Field Experience) - HVAC/R Technology/Technician or Air Conditioning Installation and Startup

HVAC, Commercial Air Conditioning Technology, Occupational Certificate

Program Information

The heating, ventilating, air conditioning and refrigeration (HVACR) industry continues to technologically advance, especially in the areas of computerization and sophisticated control systems. Thus, there is an upward trend in the changing skill sets required for successful service technicians. If you’re passionate about progressive technology and are interested in a satisfying high-demand career based on skill, then the San Jacinto College air conditioning technology program is right for you.

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- Is made up of a curriculum that provides the basic preparation for entry-level jobs in the fields of air conditioning, refrigeration, and heating with initial focus on troubleshooting and service. As the student advances through the program, related topics of indoor air quality, load calculation, system design, and industry code standards are also covered.

Additional Information

The Fast Track to HVACR program allows students to complete an occupational certificate in just 16 weeks – one semester.
San Jacinto College

Upon completion of each certificate, students may become certified with the state by registering with the Texas Department of Licensing and Regulation (TDLR).

**Career Opportunities**

Graduates of the air conditioning program will enter a high demand field with excellent wage earning potential. Presently, industry advisors say the demand for technicians has a 10-year backlog and 21 percent growth rate, faster than the average for all occupations.

Graduates of the San Jacinto College air conditioning technology program have the opportunity to work as:

- Residential/commercial technicians,
- Industrial or maintenance technicians,
- Independent business owner or contractors, and
- Refrigeration technicians.

**Earning Potential**

Heating and air conditioning mechanic and installer median salary: $45,457  

1 Source: texwages.com (http://texaswages.com), Gulf Coast region, 2017

**Campuses**

- North Campus
- South Campus

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**Information**

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**Occupational Certificate**

The Commercial Air Conditioning Occupational Certificate is a fast-track training option that provides an opportunity to enter the commercial air conditioning industry with a Federal EPA 608 Universal License after only one semester. Students can be registered and certified through the Texas Department of License and Regulations in air conditioning technology. All courses in this certificate program apply to the Associate of Applied Science (AAS) degree for those students wishing to continue their education.

**Admission**

No admission requirements.

Job entry requirements:

For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

**Plan of Study**

**North Campus**  
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<td>Commercial Air Conditioning</td>
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Credits: 16

**Capstone Experience:** HART 2441 Commercial Air Conditioning

**HVAC, Residential Air Conditioning Technology Occupational Certificate**

**Program Information**

The heating, ventilating, air conditioning and refrigeration (HVACR) industry continues to technologically advance, especially in the areas of computerization and sophisticated control systems. Thus, there is an upward trend in the changing skill sets required for successful service technicians. If you’re passionate about progressive technology and are interested in a satisfying high-demand career based on skill, then the San Jacinto College air conditioning technology program is right for you.

The San Jacinto College air conditioning (HVACR) technology program:

- Is designed to provide students with the necessary skills required to become a state licensed independent business owner/contractor, or for employment in the industry as a technician in residential, commercial and/or industrial air conditioning, refrigeration and heating.
- Is made up of a curriculum that provides the basic preparation for entry-level jobs in the fields of air conditioning, refrigeration and heating with initial focus on troubleshooting and service. As the student advances through the program, related topics of indoor air quality, load calculation, system design and industry code standards are also covered.

**Additional Information**

The Fast Track to HVACR program allows students to complete an occupational certificate in just 16 weeks – one semester.
Upon completion of each certificate, students may become certified with the state by registering with the Texas Department of Licensing and Regulation (TDLR).

Career Opportunities

Graduates of the air conditioning program will enter a high demand field with excellent wage earning potential. Presently, industry advisors say the demand for technicians has a 10-year backlog, and a 21 percent growth rate, faster than the average for all occupations.

Graduates of the San Jacinto College air conditioning technology program have the opportunity to work as:

- Residential/commercial technician
- Industrial or maintenance technician
- Independent business owner or contractor
- Refrigeration technician

Earning Potential

Heating and air conditioning mechanic and installer median salary: $45,457

1 Source: texawages.com (http://texaswages.com), Gulf Coast region, 2017

Campuses

North Campus
South Campus

For more information contact North campus at 281-998-6150, x7264 or South Campus at 281-998-6150, x3587.

Information

The Commercial Air Conditioning program is offered at the San Jacinto College North campus. The Residential Air Conditioning program is offered at the San Jacinto College South campus. Both programs offer an occupational certificate, a certificate of technology, and an Associate of Applied Science (AAS). The North campus offers the Level 2 certificate. All courses in each certificate apply to the commercial or residential AAS.

Occupational Certificate

The Residential Air Conditioning Occupational Certificate program is designed to provide students with foundational knowledge, skills, and abilities for entry-level employment in the residential and light commercial heating, ventilation, air conditioning and refrigeration. The purpose of this certificate is to provide short-term training, usually completed in one semester, for the student to move quickly into the air conditioning and refrigeration career field. Students are eligible for the certificate indicated upon completion of the designated courses. All the courses in this certificate apply toward the certificate of technology and the Associate of Applied Science (AAS) degree.

Admission

No admission requirements.

Job entry requirements:

For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

Plan of Study

South Campus
6AIRC-R

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Credits 16

Capstone Experience: HART 1441 Residential Air Conditioning

HVAC, Residential Air Conditioning Technology, Associate of Applied Science

Program Information

The heating, ventilating, air conditioning and refrigeration (HVACR) industry continues to technologically advance, especially in the areas of computerization and sophisticated control systems. Thus, there is an upward trend in the changing skill sets required for successful service technicians. If you’re passionate about progressive technology and are interested in a satisfying high-demand career based on skill, then the San Jacinto College air conditioning technology program is right for you.

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- Is made up of a curriculum that provides the basic preparation for entry-level jobs in the fields of air conditioning, refrigeration and heating with initial focus on troubleshooting and service. As the student advances through the program, related topics of indoor air quality, load calculation, system design and industry code standards are also covered.
Additional Information
The Fast Track to HVACR program allows students to complete an occupational certificate in just 16 weeks – one semester.

Upon completion of each certificate, students may become certified with the state by registering with the Texas Department of Licensing and Regulation (TDLR).

Career Opportunities
Graduates of the air conditioning program will enter a high demand field with excellent wage earning potential. Presently, industry advisors say the demand for technicians has a 10-year backlog, and a 21 percent growth rate, faster than the average for all occupations.

Graduates of the San Jacinto College air conditioning technology program have the opportunity to work as:

- Residential/commercial technician
- Industrial or maintenance technician
- Independent business owner or contractor
- Refrigeration technician

Earning Potential
Heating and air conditioning mechanic and installer median salary: $45,457

1 Source: tawages.com (http://tawages.com), Gulf Coast region, 2017

Campuses
North Campus
South Campus
For more information contact North campus at 281-998-6150, x7264 or South Campus at 281-998-6150, x3587.

Information
The Commercial Air Conditioning program is offered at the San Jacinto College North campus. The Residential Air Conditioning program is offered at the San Jacinto College South campus. Both programs offer an occupational certificate, a certificate of technology, and an Associate of Applied Science (AAS). The North campus offers the Level 2 certificate. All courses in each certificate apply to the commercial or residential AAS.

Associate of Applied Science
The Air Conditioning Technology program is designed to provide students with a study of electrical and mechanical knowledge, skills and abilities needed for employment in today’s residential and light commercial Heating Ventilation Air Conditioning and Refrigeration (HVAC/R) careers. These skills help prepare students for employment as installers, salespersons and technicians in residential and light commercial air conditioning, refrigeration and heating. A graduate of this program will have a good foundational knowledge in the principles of air conditioning, heating and refrigeration, with main emphasis on installation, troubleshooting and customer service. Related topics of energy conservation, air systems design and analysis, advanced HVAC/R controls and air conditioning codes are thoroughly covered. While this degree provides the student with 45 credit hours of HVAC/R specific courses, it also provides the student with 15 credit hours of general education courses should the student look to pursue a higher degree in the future.

Admission
No admission requirements.

Job entry requirements:
For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

Plan of Study
South Campus
3AIRC-R

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<td>HART 1401</td>
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<td>HART 1407</td>
<td>Refrigeration Principles</td>
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<td>HART 1441</td>
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<td>EECT 1300</td>
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<td>HART 2345</td>
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<td>HART 2349</td>
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<td>HART 2301</td>
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<td>HART 2336</td>
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<td>ENGL 1301</td>
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Capstone Experience: HART 2336 Air Conditioning Troubleshooting
Program Information

The heating, ventilating, air conditioning and refrigeration (HVACR) industry continues to technologically advance, especially in the areas of computerization and sophisticated control systems. Thus, there is an upward trend in the changing skill sets required for successful service technicians. If you’re passionate about progressive technology and are interested in a satisfying high-demand career based on skill, then the San Jacinto College air conditioning technology program is right for you.

The San Jacinto College air conditioning (HVACR) technology program:

- Is designed to provide students with the necessary skills required to become a state licensed independent business owner/contractor, or for employment in the industry as a technician in residential, commercial and/or industrial air conditioning, refrigeration and heating.
- Is made up of a curriculum that provides the basic preparation for entry-level jobs in the fields of air conditioning, refrigeration and heating with initial focus on troubleshooting and service. As the student advances through the program, related topics of indoor air quality, load calculation, system design and industry code standards are also covered.

Additional Information

The Fast Track to HVACR program allows students to complete an occupational certificate in just 16 weeks – one semester.

Upon completion of each certificate, students may become certified with the state by registering with the Texas Department of Licensing and Regulation (TDLR).

Career Opportunities

Graduates of the air conditioning program will enter a high demand field with excellent wage earning potential. Presently, industry advisors say the demand for technicians has a 10-year backlog, and a 21 percent growth rate, faster than the average for all occupations.

Graduates of the San Jacinto College air conditioning technology program have the opportunity to work as:

- Residential/commercial technician
- Industrial or maintenance technician
- Independent business owner or contractor
- Refrigeration technician

Earning Potential

Heating and air conditioning mechanic and installer median salary: $45,457

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

Campuses

North Campus
South Campus

For more information contact North campus at 281-998-6150, x7264 or South Campus at 281-998-6150, x3587.

Information

The Commercial Air Conditioning program is offered at the San Jacinto College North campus. The Residential Air Conditioning program is offered at the San Jacinto College South campus. Both programs offer an occupational certificate, a certificate of technology, and an Associate of Applied Science (AAS). The North campus offers the Level 2 certificate. All courses in each certificate apply to the commercial or residential AAS.

Certificate of Technology

The Residential Air Conditioning Certificate of Technology builds on the Residential Occupational Certificate to provide students with more advanced residential and light commercial Heating Ventilation Air Conditioning and Refrigeration (HVAC/R) knowledge, skills, and abilities in electrical and mechanical controls and systems, refrigeration, installation, and customer service. Graduates with this award can seek entry-level employment as air conditioning and refrigeration installers, HVAC/R salespersons, service technicians, and/or air conditioning contractors. All courses on this certificate apply to the Associate of Applied Science (AAS) degree.

Admission

No admission requirements.

Job entry requirements:

For students in this course who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair. Reference Texas House Bill 1508.

Plan of Study

South Campus

4AIRC-R

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<td></td>
<td>Credits</td>
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<td>Second Term</td>
<td>Advanced Electricity for HVAC</td>
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</table>
San Jacinto College 2019-2020

Program Information

As machines continue to evolve in digital sophistication, intricately connected and operated by complex control systems, instrument technicians have become indispensable to keeping the wheels of industry turning. Working in a comprehensive industrial computer control lab, students learn how to install, maintain, and troubleshoot intelligent integrated control systems, developing skills highly sought after in chemical plants, refineries, pipeline companies, power plants, water treatment facilities, all types of manufacturing plants, and many more.

Career Opportunities

The primary focus of San Jacinto College’s Instrumentation Technology program is to provide the industry with high-quality, trainable, entry-level technicians. Our graduates will find employment in the following industries:

- Chemical plants,
- Oil refineries,
- Oil exploration and production companies,
- Cross-country pipeline companies,
- Electrical power plants,
- Municipal water treatment facilities,
- Manufacturer field technician positions,
- Instrumentation maintenance positions in large buildings or on campus type facilities,
- Manufacturing plants, and
- Instrumentation sales.

For more information contact 281-998-6150, x1352 or email Joseph.Zwiercan@sjcd.edu

Instrumentation Technology, Associate of Applied Science

Campus

Central Campus

Information

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 equipped with both pneumatic and analog electronic lab control. We also have a 10-station Allen Bradley (AB Compact Logix) 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, municipal water treatment facilities for cross-country pipeline companies, electrical power plants, and in manufacturer field technician positions.

Plan of Study

Central Campus

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<tr>
<th>Course</th>
<th>Title</th>
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<td>ENER 1240</td>
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<td>CETT 1302</td>
<td>Electricity Principles</td>
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<td>INCR 1302</td>
<td>Physics of Instrumentation</td>
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<td>TECM 1301</td>
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<td>ENER 1330</td>
<td>Basic Mechanical Skills for Energy</td>
<td>3</td>
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<td>OSHT 1320</td>
<td>Energy Industrial Safety</td>
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<td>INTC 1322</td>
<td>Analog Controls I</td>
<td>3</td>
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<td>INTC 2310</td>
<td>Principles of Industrial Measurement II</td>
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<td>INTC 1355</td>
<td>Unit Operations</td>
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<td>INTC 1315</td>
<td>Final Control Elements</td>
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<td>ELPT 2319</td>
<td>Programmable Logic Controllers I</td>
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<td><strong>Fourth Term</strong></td>
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<td>INTC 2330</td>
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<td>or INTC 2388</td>
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<td>INTC 2359</td>
<td>Distributed Control Systems</td>
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<td>INTC 2333</td>
<td>Instrumentation Systems Installation</td>
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<td>CHEM 1305</td>
<td>Introductory Chemistry I (lecture)</td>
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<td>Introductory Chemistry I (lab)</td>
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<td><strong>Verification of workplace competencies</strong></td>
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<tr>
<td>1 Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra College Algebra. Students entering this program with MATH 1314 College Algebra or higher may substitute the higher Math course for TECM 1301 Industrial Mathematics.</td>
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<td>2 Students who have successfully completed ENGL 1302 Composition II Composition II or ENGL 2311 Technical and Business Writing Technical and Business Writing may receive credit for ETWR 1302 Introduction to Technical Writing.</td>
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Program Information

As machines continue to evolve in digital sophistication, intricately connected and operated by complex control systems, instrument technicians have become indispensable to keeping the wheels of industry turning. Working in a comprehensive industrial computer control lab, students learn how to install, maintain, and troubleshoot intelligent integrated control systems, developing skills highly sought after in chemical plants, refineries, pipeline companies, power plants, water treatment facilities, all types of manufacturing plants, and many more.

Career Opportunities

The primary focus of San Jacinto College's Instrumentation Technology program is to provide the industry with high-quality, trainable, entry-level technicians. Our graduates will find employment in the following industries:

- Chemical plants,
- Oil refineries,
- Oil exploration and production companies,
- Cross-country pipeline companies,
- Electrical power plants,
- Municipal water treatment facilities,
- Manufacturer field technician positions,
- Instrumentation maintenance positions in large buildings or on campus type facilities,
- Manufacturing plants, and
- Instrumentation sales.

For more information contact 281-998-6150, x1352 or email Joseph.Zwiercan@sjcd.edu

Campus

Central Campus

Information

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
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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 equipped with both pneumatic and analog electronic lab control. We also have a 10-station Allen Bradley (AB Compact Logix) 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, municipal water treatment facilities for cross-country pipeline companies, electrical power plants, and in manufacturer field technician positions.

Enhanced Skills Certificate

The enhanced skills certificate in instrumentation technology is designed for students who have completed the instrumentation technology Associate of Applied Science (AAS) degree.

Plan of Study

Central Campus
EINST

Please see Instrumentation Technology, Associate of Applied Science (p. 111) page for more information.

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Instrumentation Technology, Level 2 Certificate

Program Information

As machines continue to evolve in digital sophistication, intricately connected and operated by complex control systems, instrument technicians have become indispensable to keeping the wheels of industry turning. Working in a comprehensive industrial computer control lab, students learn how to install, maintain, and troubleshoot intelligent integrated control systems, developing skills highly sought after in chemical plants, refineries, pipeline companies, power plants, water treatment facilities, all types of manufacturing plants, and many more.

Career Opportunities

The primary focus of San Jacinto College's Instrumentation Technology program is to provide the industry with high-quality, trainable, entry-level technicians. Our graduates will find employment in the following industries:

- Chemical plants,
- Oil refineries,
- Oil exploration and production companies,
- Cross-country pipeline companies,
- Electrical power plants,
- Municipal water treatment facilities,
- Manufacturer field technician positions,
- Instrumentation maintenance positions in large buildings or on campus type facilities,
- Manufacturing plants, and
- Instrumentation sales.

For more information contact 281-998-6150, x1352 or email Joseph.Zwiercan@sjcd.edu

Campus

Central Campus

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Plan of Study
Central Campus
5INST

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Capstone Experience: INTC 2330 Instrumentation Systems Troubleshooting or INTC 2388 Internship Instrumentation Technology/Technician

Verification of workplace competencies.

1 Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra. Students entering this program with MATH 1314 College Algebra or higher may substitute the higher Math course for TECM 1301 Industrial Mathematics.

2 Students who have successfully completed ENGL 1302 Composition II or ENGL 2311 Technical and Business Writing may receive credit for ETWR 1302 Introduction to Technical Writing.

Program Information
Do you get swept up by thoughts of a life at sea? Do high salaries and vacation time off interest you? If so, pursuing a degree in maritime transportation might be right for you! The San Jacinto College maritime transportation associate degree program offers United States Coast Guard (USCG)-approved and internationally recognized Standards of Training, Certification, and Watchkeeping (STCW) maritime training, and deck level course work for all professional mariners. Training ranges from the entry-level deckhand on an inland towboat, to Unlimited Tonnage Masters on the world’s largest ships, and everything in between.

Our staff consists of USCG-approved Ship Masters, Chief Engineers, former US Navy, Merchant Marine Officers, and skilled technicians with more than a century of combined experience who make the learning experience both effective and enjoyable.

The San Jacinto College associate degree maritime transportation program:

• Provides students with US Coast Guard-approved instruction to be capable, knowledgeable mariners,
• Provides instruction, actual experience, and course work to become a professional mariner or professional captain, and
• Maximizes the number of maritime courses the student can enroll in and includes general academic courses.

Career Opportunities
Texas ranks first in the nation for both domestic and international freight with its waterways, handling almost 50 million tons of freight shipments each year and has been the top exporting state for 13 years.
In Houston, more than 200,000 barge transits occur in and out of the Port of Houston each year.

Texas waterways and ports support approximately 1,170,000 jobs and contribute $264 billion to the state’s economy. These lucrative jobs hold great potential for professional growth and advancement in the maritime transportation industry.

**Earning Potential**

**Note:** Below are starting salaries in Texas. Salaries for these positions greatly increase within the Houston region, where there is high vessel traffic.

- Sailors and Marine Oilers median salary: $39,620 per year
- Captains, Mates, and Pilots median salary: $132,552 per year

1 Source: www.texaswages.com (http://www.texaswages.com), Gulf Coast region, 2017

For more information contact 281-459-5483 or sanjacinto.maritime@sjcd.edu.

**Campus**

**Maritime Campus**

**Information**

The maritime transportation program was developed at the request of an advisory committee comprised of members from the maritime industry. Maritime is a semester credit hour program that incorporates US Coast Guard approved training into the semester credit courses. This training provides instruction to prepare students for a future career as a mariner on board vessels. As part of the Associate of Applied Science (AAS) degree in maritime transportation, students must complete two Practicums during summer terms. Typically, this means working as a deckhand or crew member on a commercial vessel. Students will obtain a Transportation Worker’s Identification Credential (TWIC) during the first semester.

All US Merchant Mariners are credentialed by a branch of the US Coast Guard-National Maritime Center. It is important that students be able to obtain a Merchant Mariner Credential. Students must be able to pass security screening, medical and professional standard requirements set by the US Coast Guard.

All maritime transportation courses with NAUT rubric are held at the Maritime Campus

3700 Old Highway 146
La Porte, TX 77571.

Call the Maritime Campus for additional information at 281-459-5483.

**Admission**

Graduates of the Maritime program who apply for a US Coast Guard license will be required to meet professional requirements, which include drug testing.

Employers often have additional requirements and stricter standards.

The medical standards can be found at: [https://www.dco.uscg.mil/Portals/9/NMC/pdfs/forms/NVIC_04-08.pdf](https://www.dco.uscg.mil/Portals/9/NMC/pdfs/forms/NVIC_04-08.pdf)

For more information, please contact Maritime Center staff sanjacinto.maritime@sjcd.edu or call 281-459-5483.

**Plan of Study**

**Central Campus**

**3Maritime**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>NAUT 1372</td>
<td>Seamanship I</td>
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<tr>
<td>NAUT 1374</td>
<td>Basic Safety and Survival</td>
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<tr>
<td>NAUT 1471</td>
<td>Introduction to Ships and Shipping</td>
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<td><strong>Second Term</strong></td>
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<tr>
<td>NAUT 1272</td>
<td>Marine Cargo Operations I</td>
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<td>NAUT 1274</td>
<td>Marine Cargo Operations II</td>
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<td>NAUT 1273</td>
<td>Engineering Familiarization</td>
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<td>NAUT 1171</td>
<td>Medical Care Provider</td>
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</tr>
<tr>
<td>NAUT 2471</td>
<td>Terrestrial and Coastal Navigation</td>
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<td>NAUT 1174</td>
<td>Maritime Regulation and Management</td>
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<tr>
<td>NAUT 2274</td>
<td>Basic Stability and Ship Construction</td>
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</tr>
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<td>BCIS 1305 or ITSC 1309</td>
<td>Business Computer Applications or Integrated Software Applications I</td>
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<td>Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)</td>
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<td>NAUT 2472</td>
<td>Integrated Operations for the Master Mariner</td>
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<td>NAUT 2171</td>
<td>Upgrade to Apprentice Mate</td>
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<td>NAUT 2278</td>
<td>Bridge Resource Management and Shiphandling</td>
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<td>Radar Observer Unlimited</td>
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<td>Social and Behavioral Sciences or Government/Political Science or American History</td>
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<td>Technical and Business Writing</td>
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</tr>
<tr>
<td><strong>Credits</strong></td>
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<td>14</td>
</tr>
</tbody>
</table>

1 For more information contact 281-459-5483 or sanjacinto.maritime@sjcd.edu.
Program Information

Do you get swept up by thoughts of a life at sea? Do high salaries and vacation time off interest you? If so, pursuing a degree in maritime transportation might be right for you! The San Jacinto College maritime transportation associate degree program offers United States Coast Guard (USCG)-approved and internationally recognized Standards of Training, Certification, and Watchkeeping (STCW) maritime training, and deck level course work for all professional mariners. Training ranges from the entry-level deckhand on an inland towboat, to Unlimited Tonnage Masters on the world’s largest ships, and everything in between.

Our staff consists of USCG-approved Ship Masters, Chief Engineers, former US Navy, Merchant Marine Officers, and skilled technicians with more than a century of combined experience who make the learning experience both effective and enjoyable.

The San Jacinto College associate degree maritime transportation program:

• Provides students with US Coast Guard-approved instruction to be capable, knowledgeable mariners,
• Provides instruction, actual experience, and course work to become a professional mariner or professional captain, and
• Maximizes the number of maritime courses the student can enroll in and includes general academic courses.

Career Opportunities

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Plan of Study
Central Campus
6MAR-CI

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<tr>
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<tbody>
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<td>2</td>
</tr>
<tr>
<td>NAUT 2471</td>
<td>Terrestrial and Coastal Navigation</td>
<td>4</td>
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<td></td>
<td>Total Credits</td>
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<tr>
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<td>NAUT 2272</td>
<td>Radar Observer Unlimited</td>
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<td></td>
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</table>

**Capstone Experience:** NAUT 1276 Seamanship II

**NDT, Fixed Equipment Specialist, Enhanced Skills Certificate**

**Test Methods**

- Ultrasonic Testing
- Phased Array Ultrasonics
- Eddy Current Testing
- Liquid Penetrant Testing
- Magnetic Particle Testing
- Visual Inspection
- Radiographic Film Interpretation
- Metrology
- Metallurgy Testing: Charpy, Tensile, Hardness and PMI
- Welding Inspection
- Pressure Vessel Inspection
- Piping Inspection

**Career Opportunities**

Graduates of San Jacinto College's NDT technology program may find employment as:
- NDT Technicians in: VT, PT, MT, UT, ET, RFI;
- UT Flaw Sizing and Phased Array Inspectors;
- AWS - Certified Welding Inspectors (CWI);
- API Inspectors - API 510, API 570;
- Quality Technicians, Inspectors, or Managers; and
- Metallurgical, Corrosion, or Coating Technicians.

**Earning Potential**

Wages are based upon experience, skill level, testing method, and a synergy of multiple certifications.

**Average Wages Per Year:**

- Non-Destructive Testing Specialist (median): $59,556 per year
- NDT Level I $57,807
- NDT Level II $83,739
- NDT Level III $103,991
- Certified Welding Inspector $64,084
- Quality Inspector $49,694
- API 510 Pressure Vessels Inspector $86,211
- API 570 Piping Inspector $72,347

2. PQNDT
3. American Welding Society Payscale, 2018

**Program Information**

Nondestructive Testing (NDT) and Inspection is a fast-growing, diverse, high-paying industry. We do more than train you for a job; we prepare you for a career!

Our program offers students the training needed to enter the inspection and quality industry and the hours required for certification with training that conforms to ASNT - American Society of Nondestructive Testing SNT-TC-1A Level II.

We offer a one-year Certificate of Technology, and a second year of advanced courses to earn an Associate of Applied Science (AAS) degree or Level 2 certificate. Courses are offered in the evenings and on Saturdays to accommodate your work schedule.

Job opportunities are diverse, so pick your industry. Graduates may work in industries such as: petrochemical, oil and gas, fabrication, welding, pipeline, turbines, aerospace, and more.

Courses in the program include Nondestructive Testing, Weld Inspection, Metallurgy, Quality, Metrology, and Codes.
NDT, Nondestructive Testing Technology, Associate of Applied Science

For additional information contact 281-478-2799.

Campus
Central Campus

Information
The Fixed Equipment Specialist Enhanced Skills Certificate in Nondestructive Testing is designed for the student who has completed the Nondestructive Testing Associate of Applied Science (AAS) degree.

Admission
No admission requirements.

Job entry requirements:
• Pass a drug test on a regular basis;
• Pass a criminal background check;¹
• Some career paths require a TWIC Card; and
• Some career paths require a good driving record.
¹ Requirements vary based on type of offense and years since the offense or the requirements of the facility where the work is being performed.

Plan of Study
Central Campus
EWLD-FXEQP

Please see Nondestructive Testing Technology, Associate of Applied Science (p. 118) page for more information.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>First Term</td>
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<tr>
<td>NDTE 2411</td>
<td>Preparation for Certified Welding Inspector Exam</td>
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<td>NDTE 2339</td>
<td>Pressure Piping Inspection</td>
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<td>NDTE 2470</td>
<td>Pressure Vessel Inspection</td>
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<td>Credits</td>
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<tr>
<td></td>
<td>Total Credits</td>
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</tr>
</tbody>
</table>

These advanced subjects require 5 years experience to sit for a certification exam. The courses are designed for both those wanting the knowledge to be able to work to gain experience and those preparing to sit for exams.

Program Information
Nondestructive Testing (NDT) and inspection is a fast-growing, diverse, high-paying industry. We do more than train you for a job; we prepare you for a career!

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Courses in the program include Nondestructive Testing, Weld Inspection, Metallurgy, Quality, Metrology, and Codes.

Test Methods
Ultrasound Testing
Phased Array Ultrasonics
Eddy Current Testing
Liquid Penetrant Testing
Magnetic Particle Testing
Visual Inspection
Radiographic Film Interpretation
Metrology
Metallurgy Testing: Charpy, Tensile, Hardness and PMI
Welding Inspection
Pressure Vessel Inspection
Piping Inspection
Career Opportunities
Graduates of San Jacinto College's NDT technology program may find employment as:

- NDT Technicians in: VT, PT, MT, UT, ET, RFI;
- UT Flaw Sizing and Phased Array Inspectors;
- AWS - Certified Welding Inspectors (CWI);
- API Inspectors - API 510, API 570;
- Quality Technicians, Inspectors, or Managers; and
- Metallurgical, Corrosion, or Coating Technicians.

Earning Potential
Wages are based upon experience, skill level, testing method, and a synergy of multiple certifications.

Average Wages Per Year:

<table>
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<tr>
<th>Position</th>
<th>Average Wage Per Year</th>
<th>Source</th>
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<tr>
<td>NDT Level I</td>
<td>$57,807</td>
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<tr>
<td>NDT Level II</td>
<td>$83,739</td>
<td>2</td>
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<tr>
<td>NDT Level III</td>
<td>$103,991</td>
<td>2</td>
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<tr>
<td>Certified Welding Inspector</td>
<td>$64,084</td>
<td>3</td>
</tr>
<tr>
<td>Quality Inspector</td>
<td>$49,694</td>
<td>4</td>
</tr>
<tr>
<td>API 510 Pressure Vessels Inspector</td>
<td>$86,211</td>
<td>5</td>
</tr>
<tr>
<td>API 570 Piping Inspector</td>
<td>$72,347</td>
<td>5</td>
</tr>
</tbody>
</table>

2 PQNDT
3 American Welding Society Payscale, 2018
4 ASQ QP Fall 2017 Salary Survey
5 American Petroleum Institute Payscale, 2018

For additional information contact 281-478-2799.

Campus
Central Campus

Information
Students pursuing the Nondestructive Testing Associate of Applied Science Degree can earn the technical training necessary to begin working in the testing, inspection, and quality fields.

San Jacinto College offers classroom training in:

- VT - Visual Inspection,
- MT - Magnetic Particle Testing,
- PT - Liquid Penetrant Testing,
- UT - Ultrasonic Testing,
- ET - Eddy Current Testing, and
- RFI - Radiographic Film Interpretation,

in conformance to the American Society for Nondestructive Testing SNT-TC-1A guidelines.

Additional coursework in: Standards, Metallurgy, Metrology, and Advanced Ultrasonics provide the foundations needed for the diversity and adaptability of skills needed in the workplace.

This training prepares students for entry-level work in Nondestructive Testing, Inspection and Quality careers in such industries as: petrochemical, fabrication, maintenance, construction, turbine and aviation, machining, metal working, quality labs and metallurgical testing.

Admission
No admission requirements.

Job entry requirements:

- Pass a drug test on a regular basis;
- Pass a criminal background check; 1
- Some career paths require a TWIC Card; and
- Some career paths require a good driving record.

1 Requirements vary based on type of offense and years since the offense or the requirements of the facility where the work is being performed.

Plan of Study
Central Campus
3WLD-NDT

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<tr>
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<td>QCTC 1446</td>
<td>Testing and Inspection Systems</td>
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<td>NDTE 1410</td>
<td>Liquid Penetrant, Magnetic Particle and Visual Testing: Level 1 &amp; 2</td>
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<td>NDTE 1405</td>
<td>Introduction to Ultrasonics: Level 1 &amp; 2</td>
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<td>METL 1313</td>
<td>Introduction to Corrosion</td>
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<td>NDTE 1301</td>
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<td>NDTE 1454</td>
<td>Intermediate Ultrasonics: Flaw Detection and Sizing</td>
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<td>Advanced Metallurgy</td>
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<tr>
<td>NDTE 2401</td>
<td>Advanced Ultrasonics: Phased Array and A.U.T.</td>
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</tr>
<tr>
<td>ENGL 1301</td>
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<td>3</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences or Government/Political Science or American History</td>
<td>3</td>
</tr>
</tbody>
</table>

**Credits**: 14

**Total Credits**: 60

**Capstone Experience**: NDTE 2401 Advanced Ultrasonics: Phased Array and A.U.T.

1. May use MATH 1314 College Algebra College Algebra or higher if transferring to a baccalaureate program.

**NDT, Nondestructive Testing Technology, Certificate of Technology**

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**Test Methods**

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2. PQNDT
3. American Welding Society Payscale, 2018
4. ASQ QP Fall 2017 Salary Survey
5. American Petroleum Institute Payscale, 2018

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**Campus**

Central Campus
Information

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- PT - Liquid Penetrant Testing,
- UT - Ultrasonic Testing, and
- Radiographic Film Interpretation,

in conformance to the American Society for Nondestructive Testing SNT-TC-1A guidelines.

Additional coursework in: Standards, Metallurgy, and Metrology provide the foundations needed for adaptability in the workplace.

The training prepares students for entry-level work in Nondestructive Testing.

Admission

No admission requirements.

Job entry requirements:

- Pass a drug test on a regular basis;
- Pass a criminal background check;
- Some career paths require a TWIC Card; and
- Some career paths require a good driving record.

Requirements vary based on type of offense and years since the offense or the requirements of the facility where the work is being performed.

Plan of Study

Central Campus
4WLD-NDT

<table>
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<tr>
<th>Course</th>
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<td>QCTC 1446</td>
<td>Testing and Inspection Systems</td>
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<td>NDTE 1410</td>
<td>Liquid Penetrant, Magnetic Particle and Visual Testing: Level 1 &amp; 2</td>
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<td>NDTE 1405</td>
<td>Introduction to Ultrasonics: Level 1 &amp; 2</td>
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<td>Introduction to Corrosion</td>
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<td>QCTC 2331</td>
<td>Standards and Codes</td>
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<td>Film Interpretation of Weldments</td>
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<td>QCTC 1448</td>
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Capstone Experience: QCTC 2331 Standards and Codes

NDT, Nondestructive Testing Technology, Level 2 Certificate

Program Information

Nondestructive Testing (NDT) and Inspection is a fast-growing, diverse, high-paying industry. We do more than train you for a job; we prepare you for a career!

Our program offers students the training needed to enter the inspection and quality industry and the hours required for certification with training that conforms to ASNT - American Society of Nondestructive Testing SNT-TC-1A Level II.

We offer a one-year Certificate of Technology, and a second year of advanced courses to earn an Associate of Applied Science (AAS) degree or Level 2 certificate. Courses are offered in the evenings and on Saturdays to accommodate your work schedule.

Job opportunities are diverse, so pick your industry. Graduates may work in industries such as: petrochemical, oil and gas, fabrication, welding, pipeline, turbines, aerospace, and more.

Courses in the program include Nondestructive Testing, Weld Inspection, Metallurgy, Quality, Metrology, and Codes.

Test Methods

Ultrasonic Testing

- Phased Array Ultrasonics
- Eddy Current Testing
- Liquid Penetrant Testing
- Magnetic Particle Testing
- Visual Inspection
- Radiographic Film Interpretation

Metallurgy

- Metallurgy Testing: Charpy, Tensile, Hardness and PMI

Welding Inspection

- Pressure Vessel Inspection
- Piping Inspection
Career Opportunities

Graduates of San Jacinto College's NDT technology program may find employment as:

- NDT Technicians in: VT, PT, MT, UT, ET, RFI;
- UT Flaw Sizing and Phased Array Inspectors;
- AWS - Certified Welding Inspectors (CWI);
- API Inspectors - API 510, API 570;
- Quality Technicians, Inspectors, or Managers; and
- Metallurgical, Corrosion, or Coating Technicians.

Earning Potential

Wages are based upon experience, skill level, testing method, and a synergy of multiple certifications.

Average Wages Per Year:

- Non-Destructive Testing Specialist (median): $59,556 per year
- NDT Level I $57,807
- NDT Level II $83,739
- NDT Level III $103,991
- Certified Welding Inspector $64,084
- Quality Inspector $49,694
- API 507 Piping Inspector $72,347

2 PQNDT
3 American Welding Society Payscale, 2018
4 ASQ QP Fall 2017 Salary Survey
5 American Petroleum Institute Payscale, 2018

For additional information contact 281-478-2799.

Campus

Central Campus

Admission

No admission requirements.

Job entry requirements:

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Plan of Study

Central Campus

San Jacinto College 2019-2020
Test Methods
Ultrasonic Testing
Phased Array Ultrasonics
Eddy Current Testing
Liquid Penetrant Testing
Magnetic Particle Testing
Visual Inspection
Radiographic Film Interpretation
Metrology
Metallurgy Testing: Charpy, Tensile, Hardness and PMI
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- API 570 Piping Inspector $72,347

2 PQNDT
3 American Welding Society Payscale, 2018

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Campus
Central Campus

Information
The Quality Analyst Enhanced Skills Certificate in Nondestructive Testing is designed for the student who has completed the Nondestructive Testing Associate of Applied Science (AAS) degree.

Admission
No admission requirements.

Job entry requirements:

- Pass a drug test on a regular basis;
- Pass a criminal background check;
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Plan of Study
Central Campus
EWLD-NDT

Please see Nondestructive Testing Technology, Associate of Applied Science (AAS) (p. 118) degree page for more information.

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<td>Statistical Process Control</td>
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<td>QCTC 1343</td>
<td>Quality Assurance</td>
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<td>BMGT 1309</td>
<td>Information and Project Management</td>
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NDT, Quality Assurance Technician, Occupational Certificate

Program Information
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Test Methods

Ultrasonic Testing
Phased Array Ultrasonics
Eddy Current Testing
Liquid Penetrant Testing
Magnetic Particle Testing
Visual Inspection
Radiographic Film Interpretation
Metrology
Metallurgy Testing: Charpy, Tensile, Hardness and PMI
Welding Inspection
Pressure Vessel Inspection
Piping Inspection

Career Opportunities

Graduates of San Jacinto College’s NDT technology program may find employment as:

- NDT Technicians in: VT, PT, MT, UT, ET, RFI;
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2 PQNDT

3 American Welding Society Payscale, 2018

4 ASQ QP Fall 2017 Salary Survey

5 American Petroleum Institute Payscale, 2018

For additional information contact 281-478-2799.

Campus

Central Campus

Information

Persons interested in the field of quality improvement 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.

Admission

No admission requirements.

Job entry requirements:

- Pass a drug test on a regular basis;
- Pass a criminal background check;
- Some career paths require a TWIC Card; and
- Some career paths require a good driving record.

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Plan of Study

Central Campus

6WLD-QAT

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<td>Testing and Inspection Systems</td>
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<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
<td>3</td>
</tr>
<tr>
<td>QCTC 1343</td>
<td>Quality Assurance</td>
<td>3</td>
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<tr>
<td>ETWR 1302</td>
<td>Introduction to Technical Writing</td>
<td>3</td>
</tr>
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<td>BMGT 1309</td>
<td>Information and Project Management</td>
<td>3</td>
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<tr>
<td>QCTC 2331</td>
<td>Standards and Codes</td>
<td>3</td>
</tr>
<tr>
<td>QCTC 1448</td>
<td>Metrology and Prints</td>
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Capstone Experience: QCTC 2331 Standards and Codes
May use ENGL 1302 Composition II or ENGL 2311 Technical and Business Writing if transferring to a baccalaureate program. Students who have successfully completed ENGL 1302 Composition II or ENGL 2311 Technical and Business Writing may receive credit for ETWR 1302 Introduction to Technical Writing.

Pipefitting Technology, Occupational Certificate

Do you appreciate hand craftsmanship? Do you get satisfaction from seeing the final results of something you built? A career in the high-demand pipefitting technology field may be the perfect fit for you. San Jacinto College can get you on the fast track to completing your pipefitting fabricator training, enabling you to finish courses in just one semester.

Students get their training at San Jacinto College’s Center for Industrial Technology in a lab that simulates a fabricator shop for hands-on learning. The courses are designed to align with the National Center for Construction Education & Research (NCCER) exams, giving students the best start to a career as a journeyman pipefitter or fabricator.

Career Opportunities
Pipefitters/fabricators are among the Texas Workforce Commission’s top 25 targeted occupations for the Gulf Coast region. World-class companies such as Fluor, KBR, Bechtel, and others are competing for skilled workers, and wages increase with demand.

Earning Potential
Pipefitter median salary: $53,528 per year

Wages vary based on experience and regional market.


For more information, contact 281-998-6150, x7529 or email Scott Ianaro at scott.ianaro@sjcd.edu

Campus
North Campus

Information
The purpose of the Pipefitting/Fabrication Occupational Certificate is to prepare graduates to enter the construction industry as entry-level pipefitters of pipe fabricators. Pipefitters/fabricators fabricate, install, and maintain pipes that carry chemicals, acids, and gases. These pipes are mostly used in manufacturing, commercial, and industrial settings. Pipefitters often install and maintain pipe systems in power and petrochemical plants as well as heating and cooling systems in large office buildings. Pipefitters also install pipe systems that move steam under high pressure. They work with construction crews to install piping systems in all industrial manufacturing processes.

Plan of Study
North Campus
6PIPEFIT

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<tr>
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<td>PFPB 1408</td>
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<tr>
<td>PFPB 1443</td>
<td>Pipefitting Fabrication and Blueprint Reading</td>
<td>4</td>
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<tr>
<td>PFPB 2432</td>
<td>Advanced Pipefitting Standards, Specifications, and Installation</td>
<td>4</td>
</tr>
<tr>
<td>PFPB 2433</td>
<td>Pipefitting: Advanced Fabrication and Installation</td>
<td>4</td>
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</tbody>
</table>

Credits 16
Total Credits 16

Capstone Experience: PFPB 2433 Pipefitting: Advanced Fabrication and Installation

Process Technology Chemical Technician, Enhanced Skills Certificate

Do you have a technical mind, you are in luck. Houston is home to the largest petrochemical and refining complex in the nation, and the demand for skilled process technicians continues to grow! Our graduates enter the workforce with the necessary skills that are highly prized by companies that continually hire students directly out of our program.

The San Jacinto College Associate of Applied Science (AAS) degree in process technology:
• Prepares students to become plant operators responsible for equipment, the hazards of the chemicals and the chemistry and physics involved in process technology;
• Teaches students to read piping and instrumentation diagrams (P&IDs), identify and troubleshoot equipment, operate simulators and as a capstone course, run the Glycol Distillation Unit which is PTAC 2438 - Process Technology III - Operations;
• Is praised by area industry for the quality of students graduating from the program as we are endorsed by the North American Process Technology Alliance (NAPTA); and
• The Process Technology program has participated and won the NAPTA National Troubleshooting Competition Championship three years in a row since we entered in 2017, 2018, and 2019.

Career Opportunities
Graduates of the San Jacinto College process technology program have the opportunity to work in:

• Chemical plants,
• Refineries,
• Wastewater treatment plants,
• Canneries,
• Pharmaceutical plants,
• Paper mills,
• Terminals,
• Pipelines, and
• Fuel storage depots.

Earning Potential
Chemical Plant and System Operators median salary: $70,508 per year

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact:
Program Director - 281-998-6150, x1495
Department Chair - 281-478-2712

Campus
Central Campus

Information
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 College works closely with industry as a member of the North American Process Technology Alliance (NAPTA) to maintain a curricula reflecting current technology standards.
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The San Jacinto College Associate of Applied Science (AAS) degree in process technology:

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Plan of Study

Central Campus

3PROT

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<td>ENER 1240</td>
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<td>Safety, Health, and Environment I</td>
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<td>&amp; CHEM 1105</td>
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<tr>
<td>or CTEC 2487</td>
<td>or Internship - Chemical Technology/Technician</td>
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</table>

San Jacinto College works closely with industry as a member of the North American Process Technology Alliance (NAPTA) 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 Level II Certificate of Technology (COT) in process technology is still accepted by most of industry; however, several industries have indicated they will hire only graduates with the Associate of Applied Science degree (AAS). Future trends indicate that most of the petrochemical industry technicians will be required to have an AAS degree. Students who earn qualifications to be in the chemical lab technician specialty degree program after obtaining their AAS will signup to pursue the Enhanced Skills Certificate (ESC). The student will then have the advantage of earning qualifications for being hired into either the operations division or laboratory department of a process plant because the ESC will make the student more marketable.

Campus

Central Campus

Information

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Department Chair - 281-478-2712
Process Technology, Level 2 Certificate

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Central Campus

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<td>CHEM 1305</td>
<td>Introductory Chemistry I (lecture)</td>
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<td>&amp; CHEM 1105</td>
<td>and Introductory Chemistry I (lab)</td>
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<tr>
<td>PTAC 2420</td>
<td>Process Technology II-Systems</td>
<td>4</td>
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<td><strong>Summer Year One Term</strong></td>
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<tr>
<td>ETWR 1302</td>
<td>Introduction to Technical Writing ²</td>
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<tr>
<td>SCIT 1418</td>
<td>Applied Physics</td>
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<td>PTAC 2314</td>
<td>Principles of Quality</td>
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<td>PTAC 2438</td>
<td>Process Technology III - Operations</td>
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<td>PTAC 2446</td>
<td>Process Troubleshooting or Internship - Chemical Technology/Technician</td>
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¹ Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra. Students entering this program with MATH 1314 College Algebra or higher may substitute the higher Math course for TECM 1301 Industrial Mathematics.

² Students who have successfully completed ENGL 1302 Composition II or ENGL 2311 Technical and Business Writing may receive credit for ETWR 1302 Introduction to Technical Writing.

**Welding Technology, Associate of Applied Science**

In Texas, industries and communities are growing, especially in the petrochemical areas. As construction rates rise, so does the demand for talented welders. As construction rates rise, so does the demand for talented welders. The US Bureau of Labor Statistics reports that the need for welders is expected to grow by 26 percent by 2020.

Welding is a process for permanently joining metals together by use of an electric-arc to melt a filler-metal into the original metal to make the two pieces as one. Welding can include joining parts such as piping, structural steel, steel plates, pressure vessels, or even small parts; and it can be performed on carbon steel, stainless steel, aluminum, and many other metals. Welding takes the skill and talent of an artist, and that skill can be acquired through training and discipline.

A welder may also be required to cut, contour, and bevel metal plates and structural shapes into dimensions as specified by blueprints, work orders, and templates using torches, saws, shears, or other machine tools.

San Jacinto College offers one of the largest and best-equipped welding training facilities in the region, where students can explore many facets of welding technology and gain access to career paths from manufacturing and industry to inspection and management.

**The San Jacinto College welding technology program:**

- Has a curriculum designed to meet the needs of the welding industry,
- Provides instruction for all positions on carbon and stainless steel plate and pipe, using the following multiple processes: Shielded Metal Arc Welding (SMAW) “Stick,” Gas Metal Arc Welding (GMAW) “MIG,” Gas Tungsten Arc Welding (GTAW) “TIG,” and Flux Cored Arc Welding (FCAW) processes, plus Oxy-Fuels;
- Offers certificates and continuing education courses for students who want to go directly into the workforce; and
- Includes an Associate of Applied Science (AAS) degree with academic courses to make a well-rounded individual to meet the needs of industry and continued opportunities

**Earning Potential**

**Welder, Cutter, Solderer and Brazer**

Overall: $47,923 per year ($23.04 hr)¹

**American Welding Society Certification Wages**

- Welder $13.00 - $27.00 hr²
- Pipe Welder $17.00 - $38.00 hr²
- Combo Welder $14.00 - $34.00 hr²
- TIG Welder $13.00 - $28.00 hr²

¹ Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

² American Welding Society Payscale Research Research, 2018

For more information, please contact the following:

Central campus: 281-476-1814 or 281-478-2799

North campus: 281-998-6150, x7639

**Campuses**

Central Campus
North Campus
**Information**

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 (AAS) degree.

The curriculum focuses on the introductory, advanced, and high-technology welding skills required in manufacturing, industry, and research.

**Admission**

No admission requirements.

Job entry requirements:

- Pass a drug test on a regular basis;
- Pass a criminal background check;
- Some career paths require a TWIC Card; and
- Some career paths require a good driving record.

1 Requirements vary based on type of offense and years since the offense, or the requirements of the facility where the work is being performed.

**Plan of Study**

**Central and North Campuses**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<tr>
<td>WLDG 1428</td>
<td>Introduction to Shielded Metal Arc Welding (SMAW)</td>
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<tr>
<td>WLDG 1204</td>
<td>Fundamentals of Oxy-Fuel Welding and Cutting</td>
<td>2</td>
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<td>Introduction to Blueprint Reading</td>
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<td>MATH 1332 or MATH 1314</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher) or College Algebra</td>
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<tr>
<td>WLDG 1434</td>
<td>Introduction to Gas Tungsten Arc Welding (GTAW)</td>
<td>4</td>
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<td>WLDG 2443</td>
<td>Advanced Shielded Metal Arc Welding (SMAW)</td>
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<td>WLDG 2451</td>
<td>Advanced Gas Tungsten Arc Welding (GTAW)</td>
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<td>WLDG 2453</td>
<td>Advanced Pipe Welding</td>
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<td>Speech</td>
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<td><strong>Fourth Term</strong></td>
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<td>WLDG 1305 or WLDG 1437</td>
<td>Art Metals or Introduction to Welding Metallurgy</td>
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<td>WLDG 1412</td>
<td>Introduction to Flux Cored Arc Welding</td>
<td>4</td>
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<tr>
<td>WLDG 2480 or WLDG 2413</td>
<td>Cooperative Education Welding or Intermediate Welding Using Multiple Processes</td>
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<tr>
<td>Social and Behavioral Sciences or Government/Political Science or American History</td>
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**Capstone Experience:** WLDG 2480 Cooperative Education Welding or WLDG 2413 Intermediate Welding Using Multiple Processes

**Welding Technology, Art-Welding, Occupational Certificate**

**Program Information**

In Texas, industries and communities are growing, especially in the petrochemical areas. As construction rates rise, so does the demand for talented welders. As construction rates rise, so does the demand for talented welders. The US Bureau of Labor Statistics reports that the need for welders is expected to grow by 26 percent by 2020.

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The San Jacinto College welding technology program:

- Has a curriculum designed to meet the needs of the welding industry,
- Provides instruction for all positions on carbon and stainless steel plate and pipe, using the following multiple processes: Shielded Metal Arc Welding (SMAW) “Stick,” Gas Metal Arc Welding (GMAW) “MIG,” Gas Tungsten Arc Welding (GTAW) “TIG,” and Flux Cored Arc Welding (FCAW) processes, plus Oxy-Fuels;
- Offers certificates and continuing education courses for students who want to go directly into the workforce; and
- Includes an Associate of Applied Science (AAS) degree with academic courses to make a well-rounded individual to meet the needs of industry and continued opportunities

Earning Potential
Welder, Cutter, Solderer and Brazer

Overall: $47,923 per year ($23.04 hr)¹

American Welding Society Certification Wages

- Welder $13.00 - $27.00 hr²
- Pipe Welder $17.00 - $38.00 hr²
- Combo Welder $14.00 - $34.00 hr²
- TIG Welder $13.00 - $28.00 hr²

¹ Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017
² American Welding Society Payscale Research Research, 2018

For more information, please contact the following:

Central campus: 281-476-1814 or 281-478-2799
North campus: 281-998-6150, x7639

Campuses
Central Campus
North Campus

Information

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 (AAS) degree.

The curriculum focuses on the introductory, advanced, and high-technology welding skills required in manufacturing, industry, and research.

Admission

No admission requirements.

Job entry requirements:

- Pass a drug test on a regular basis;
- Pass a criminal background check;¹
- Some career paths require a TWIC Card; and
- Some career paths require a good driving record.

¹ Requirements vary based on type of offense and years since the offense, or the requirements of the facility where the work is being performed.

Plan of Study

North Campus
6WLD-ART

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<td>WLDG 1305</td>
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<tr>
<td>WLDG 1308</td>
<td>Metal Sculpture</td>
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<tr>
<td>WLDG 1204</td>
<td>Fundamentals of Oxy-Fuel Welding and Cutting</td>
<td>2</td>
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<tr>
<td>WLDG 1428</td>
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<tr>
<td>WLDG 1430</td>
<td>Introduction to Gas Metal Arc Welding (GMAW)</td>
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Capstone Experience: WLDG 1430 Introduction to Gas Metal Arc Welding (GMAW)

Welding, Combination Welder, Certificate of Technology

Program Information

In Texas, industries and communities are growing, especially in the petrochemical areas. As construction rates rise, so does the demand for talented welders. As construction rates rise, so does the demand for talented welders. The US Bureau of Labor Statistics reports that the need for welders is expected to grow by 26 percent by 2020.

Welding is a process for permanently joining metals together by use of an electric-arc to melt a filler-metal into the original metal to make the two pieces as one. Welding can include joining parts such as piping, structural steel, steel plates, pressure vessels, or even small parts; and it can be performed on carbon steel, stainless steel, aluminum, and many other metals. Welding takes the skill and talent of an artist, and that skill can be acquired through training and discipline.
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The San Jacinto College welding technology program:

- Has a curriculum designed to meet the needs of the welding industry,
- Provides instruction for all positions on carbon and stainless steel plate and pipe, using the following multiple processes: Shielded Metal Arc Welding (SMAW) “Stick,” Gas Metal Arc Welding (GMAW) “MIG,” Gas Tungsten Arc Welding (GTAW) "TIG," and Flux Cored Arc Welding (FCAW) processes, plus Oxy-Fuels;
- Offers certificates and continuing education courses for students who want to go directly into the workforce; and
- Includes an Associate of Applied Science (AAS) degree with academic courses to make a well-rounded individual to meet the needs of industry and continued opportunities.

Earning Potential

Welder, Cutter, Solderer and Brazer

Overall: $47,923 per year ($23.04 hr)

American Welding Society Certification Wages

- Welder $13.00 - $27.00 hr
- Pipe Welder $17.00 - $38.00 hr
- Combo Welder $14.00 - $34.00 hr
- TIG Welder $13.00 - $28.00 hr

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017
2 American Welding Society Payscale Research Research, 2018

For more information, please contact the following:

Central campus: 281-476-1814 or 281-478-2799
North campus: 281-998-6150, x7639

Campuses

Central Campus
North Campus

Information

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 (AAS) degree.

The curriculum focuses on the introductory, advanced, and high-technology welding skills required in manufacturing, industry, and research.

Certificate of Technology

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.

Admission

No admission requirements.

Job entry requirements:

- Pass a drug test on a regular basis;
- Pass a criminal background check;
- Some career paths require a TWIC Card; and
- Some career paths require a good driving record.

1 Requirements vary based on type of offense and years since the offense, or the requirements of the facility where the work is being performed.

Plan of Study

Central and North Campuses
4WLD-C

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<tr>
<th>Course</th>
<th>Title</th>
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<td>WLDG 1428</td>
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<tr>
<td>WLDG 2443</td>
<td>Advanced Shielded Metal Arc Welding (SMAW)</td>
<td>4</td>
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<tr>
<td>WLDG 1434</td>
<td>Introduction to Gas Tungsten Arc Welding (GTAW)</td>
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Total Credits 12

Second Term

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<td>WLDG 2406</td>
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<tr>
<td>WLDG 2451</td>
<td>Advanced Gas Tungsten Arc Welding (GTAW)</td>
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Total Credits 12

Capstone Experience: WLDG 2451 Advanced Gas Tungsten Arc Welding (GTAW)
Welding, Gas Shielded Welding, Certificate of Technology

Program Information
In Texas, industries and communities are growing, especially in the petrochemical areas. As construction rates rise, so does the demand for talented welders. As construction rates rise, so does the demand for talented welders. The US Bureau of Labor Statistics reports that the need for welders is expected to grow by 26 percent by 2020.

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San Jacinto College offers one of the largest and best-equipped welding training facilities in the region, where students can explore many facets of welding technology and gain access to career paths from manufacturing and industry to inspection and management.

The San Jacinto College welding technology program:
• Has a curriculum designed to meet the needs of the welding industry,
• Provides instruction for all positions on carbon and stainless steel plate and pipe, using the following multiple processes: Shielded Metal Arc Welding (SMAW) “Stick,” Gas Metal Arc Welding (GMAW) “MIG,” Gas Tungsten Arc Welding (GTAW) “TIG,” and Flux Cored Arc Welding (FCAW) processes, plus Oxy-Fuels;
• Offers certificates and continuing education courses for students who want to go directly into the workforce; and
• Includes an Associate of Applied Science (AAS) degree with academic courses to make a well-rounded individual to meet the needs of industry and continued opportunities.

Earning Potential
Welder, Cutter, Solderer and Brazer
Overall: $47,923 per year ($23.04 hr)\(^1\)

American Welding Society Certification Wages
• Welder $13.00 - $27.00 hr\(^2\)
• Pipe Welder $17.00 - $38.00 hr\(^2\)

\(^1\) Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017
\(^2\) American Welding Society Payscale Research Research, 2018

For more information, please contact the following:
Central campus: 281-476-1814 or 281-478-2799
North campus: 281-998-6150, x7639

Campuses
Central Campus
North Campus

Information
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 (AAS) degree.

The curriculum focuses on the introductory, advanced, and high-technology welding skills required in manufacturing, industry, and research.

Certificate of Technology
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.

Admission
No admission requirements.

Job entry requirements:
• Pass a drug test on a regular basis;
• Pass a criminal background check;\(^1\)
• Some career paths require a TWIC Card; and
• Some career paths require a good driving record.\(^1\)

\(^1\) Requirements vary based on type of offense and years since the offense, or the requirements of the facility where the work is being performed.

Plan of Study
Central and North Campuses
4WLD-GAS

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<th>Title</th>
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San Jacinto College 2019-2020
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<tr>
<td>WLDG 2451</td>
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<td>Introduction to Blueprint Reading</td>
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<tr>
<td>WLDG 1412</td>
<td>Introduction to Flux Cored Arc Welding</td>
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<tr>
<td>WLDG 2480</td>
<td>Cooperative Education Welding or Intermediate Welding Using Multiple Processes</td>
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Credits: 12
Total Credits: 24

**Capstone Experience:** WLDG 2480 Cooperative Education Welding or WLDG 2413 Intermediate Welding Using Multiple Processes

### Welding, Industrial Welder, Level 2 Certificate

**Program Information**

In Texas, industries and communities are growing, especially in the petrochemical areas. As construction rates rise, so does the demand for talented welders. As construction rates rise, so does the demand for talented welders. The US Bureau of Labor Statistics reports that the need for welders is expected to grow by 26 percent by 2020.

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- Offers certificates and continuing education courses for students who want to go directly into the workforce; and
- Includes an Associate of Applied Science (AAS) degree with academic courses to make a well-rounded individual to meet the needs of industry and continued opportunities

### Earning Potential

**Welder, Cutter, Solderer and Brazer**
Overall: $47,923 per year ($23.04 hr)

1. **American Welding Society Certification Wages**
   - Welder $13.00 - $27.00 hr
   - Pipe Welder $17.00 - $38.00 hr
   - Combo Welder $14.00 - $34.00 hr
   - TIG Welder $13.00 - $28.00 hr

1. Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017
2. American Welding Society Payscale Research Research, 2018

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North campus: 281-998-6150, x7639

**Campuses**

Central Campus
North Campus

**Information**

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The curriculum focuses on the introductory, advanced, and high-technology welding skills required in manufacturing, industry, and research.

### Level 2 Certificate

This certificate captures all the welding courses in both the combination welder, and gas shielded certificates of technology. This certificate covers the major welding process used in the petrochemical, and pipeline industries (SMAW, GTAW, GMAW, and FCAW). It also covers blueprint reading for welders.

**Admission**
No admission requirements.

Job entry requirements:
Pass a drug test on a regular basis;  
Pass a criminal background check;\(^1\)  
Some career paths require a TWIC Card; and  
Some career paths require a good driving record.\(^1\)

\(^1\) Requirements vary based on type of offense and years since the offense, or the requirements of the facility where the work is being performed.

### Plan of Study
Central and North Campuses  
5WLD-IW

<table>
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<th>Course</th>
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<td>Introduction to Gas Tungsten Arc Welding (GTAW)</td>
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<td>WLDG 2443</td>
<td>Advanced Shielded Metal Arc Welding (SMAW)</td>
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<td>WLDG 2451</td>
<td>Advanced Gas Tungsten Arc Welding (GTAW)</td>
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<td>WLDG 1412</td>
<td>Introduction to Flux Cored Arc Welding</td>
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<td>WLDG 1413</td>
<td>Introduction to Blueprint Reading</td>
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<td><strong>Third Term</strong></td>
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<td>WLDG 2406</td>
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<tr>
<td>WLDG 2480 or WLDG 2413</td>
<td>Cooperative Education Welding or Intermediate Welding Using Multiple Processes</td>
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**Capstone Experience:** WLDG 2480 Cooperative Education Welding or WLDG 2413 Intermediate Welding Using Multiple Processes

### Program Information

In Texas, industries and communities are growing, especially in the petrochemical areas. As construction rates rise, so does the demand for talented welders. As construction rates rise, so does the demand for talented welders. The US Bureau of Labor Statistics reports that the need for welders is expected to grow by 26 percent by 2020.

Welding is a process for permanently joining metals together by use of an electric-arc to melt a filler-metal into the original metal to make the two pieces as one. Welding can include joining parts such as piping, structural steel, steel plates, pressure vessels, or even small parts; and it can be performed on carbon steel, stainless steel, aluminum, and many other metals. Welding takes the skill and talent of an artist, and that skill can be acquired through training and discipline.

A welder may also be required to cut, contour, and bevel metal plates and structural shapes into dimensions as specified by blueprints, work orders, and templates using torches, saws, shears, or other machine tools.

San Jacinto College offers one of the largest and best-equipped welding training facilities in the region, where students can explore many facets of welding technology and gain access to career paths from manufacturing and industry to inspection and management.

### The San Jacinto College welding technology program:

- Has a curriculum designed to meet the needs of the welding industry,
- Provides instruction for all positions on carbon and stainless steel plate and pipe, using the following multiple processes: Shielded Metal Arc Welding (SMAW) “Stick,” Gas Metal Arc Welding (GMAW) “MIG,” Gas Tungsten Arc Welding (GTAW) “TIG,” and Flux Cored Arc Welding (FCAW) processes, plus Oxy-Fuels;
- Offers certificates and continuing education courses for students who want to go directly into the workforce; and
- Includes an Associate of Applied Science (AAS) degree with academic courses to make a well-rounded individual to meet the needs of industry and continued opportunities

### Earning Potential

**Welder, Cutter, Solderer and Brazer**

Overall: $47,923 per year ($23.04 hr)\(^1\)

**American Welding Society Certification Wages**

- Welder $13.00 - $27.00 hr\(^2\)
- Pipe Welder $17.00 - $38.00 hr\(^2\)
• Combo Welder $14.00 - $34.00 hr
• TIG Welder $13.00 - $28.00 hr

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017
2 American Welding Society Payscale Research Research, 2018

For more information, please contact the following:
Central campus: 281-476-1814 or 281-478-2799
North campus: 281-998-6150, x7639

Campuses
Central Campus
North Campus

Information
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 (AAS) degree.

The curriculum focuses on the introductory, advanced, and high-technology welding skills required in manufacturing, industry, and research.

Occupational Certificate
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 (AAS) in Welding Technology.

Admission
No admission requirements.

Job entry requirements:
• Pass a drug test on a regular basis;
• Pass a criminal background check;¹
• Some career paths require a TWIC Card; and
• Some career paths require a good driving record.

¹ Requirements vary based on type of offense and years since the offense, or the requirements of the facility where the work is being performed.

Plan of Study
Central and North Campuses
6WLD-STI

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<thead>
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<th>First Term</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>Advanced Shielded Metal Arc Welding (SMAW)</td>
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<td>WLDG 2406</td>
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Capstone Experience: WLDG 2453 Advanced Pipe Welding
EDUCATION

• Child Development, Associate Training for Director, Occupational Certificate
• Child Development/Early Childhood Education, Associate of Applied Science
• Child Development/Early Childhood Education, Certificate of Technology
• Educational Aide, Certificate of Technology
• Educational Aide, Occupational Certificate
• Teaching - Early Childhood to 6th Grade, Associate of Arts in Teaching
• Teaching - Grades 7 to 12, Associate of Arts in Teaching

Child Development, Associate Training for Director, Occupational Certificate

Program Information
Do you have a passion for shaping the future? Do you desire to inspire the youth around you because of your passion? If so, San Jacinto College’s child development program is designed for students like you who want to have a profound, positive effect on society through our children. Our program offers the knowledge and technical skills you need to enter the child development profession and serves as a launching pad to a four-year bachelor's degree program in education. Are you ready for the future?

The San Jacinto College child development/early childhood studies program is designed to develop basic skills, attitudes, and competencies necessary for personnel to provide high-quality care in a variety of early childhood programs.

Career Opportunities
Students who receive an Associate of Applied Science (AAS) in Child Development/Early Childhood Education pursue careers in:

• Teaching,
• Directing and/or owning an early childhood program for profit or non-profit,
• Teaching in a family day home setting,
• Becoming a nanny,
• Teaching in a church-related program or government facilities,
• Working at a children's museum, and
• Working in an early childhood intervention program.

Earning Potential
Preschool teacher median salary: $24,024

Education administrator, preschool, and childcare median salary: $41,519

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1867; or North campus, 281-459-7635.

Campus(es)
Central Campus
North Campus

Information
The Child Development/Early Childhood Education Associate of Applied Science (AAS) degree 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.

Occupational Certificate
The Child Development Associate Training for Director Occupational Certificate program has been designed to provide educational training for persons interested in teaching young children and/or directing child care 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.

CDEC and TECA Student
The 80th Texas Legislature passed a law, Senate Bill 758, that as of Sept. 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 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.

**Plan of Study**

**Central and North Campuses**

6CHID-DIR

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<th>Course</th>
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<td>Child Development Associate Training II</td>
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<td>Child Development Associate Training III</td>
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<td>CDEC 2326</td>
<td>Administration of Programs for Children I</td>
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<td>CDEC 2328</td>
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**Credits** 18

**Total Credits** 18

**Capstone Experience:** CDEC 2328 Administration of Programs for Children II

**Child Development/Early Childhood Education, Associate of Applied Science**

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**Career Opportunities**

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- Becoming a nanny,
- Teaching in a church-related program or government facilities,
- Working at a children's museum, and
- Working in an early childhood intervention program.

**Earning Potential**

Preschool teacher median salary: $24,024

Education administrator, preschool, and childcare median salary: $41,519

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1867; or North campus, 281-459-7635.

**Campus(es)**

Central Campus
North Campus

**Information**

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**CDEC and TECA Student**

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**Program Information**

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Plan of Study

Central and North Campuses

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<td>CDEC 2407</td>
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<td>Families, School and Community</td>
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<td>CDEC 2366</td>
<td>Practicum (or Field Experience) - Child Care Provider/Assistant</td>
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Capstone Experience: CDEC 2366 Practicum (or Field Experience) - Child Care Provider/Assistant

Approved Electives

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<td>CDEC 2424</td>
<td>Child Development Associate Training III</td>
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Child Development/Early Childhood Education, Certificate of Technology

Program Information

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Education administrator, preschool, and childcare median salary: $41,519
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Campus(es)
Central Campus
North Campus

Information
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Plan of Study
Central and North Campuses
4CHID-ECE

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Second Term
TECA 1318   Wellness of the Young Child     3

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<td>Curriculum Resources for Early Childhood</td>
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<td>or CDEC 2422</td>
<td>Programs or Child Development Associate Training I</td>
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<td>or CDEC 2328</td>
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Credits
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Third Term
TECA 1303   Families, School and Community   3
CDEC 1323   Observation and Assessment       3

Select one of the following:

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Credits
12

Total Credits
42

Capstone Experience: CDEC 2366 Practicum (or Field Experience) - Child Care Provider/Assistant

Approved Electives

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<tr>
<td>CDEC 2341</td>
<td>The School Age Child</td>
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<tr>
<td>CDEC 2424</td>
<td>Child Development Associate Training III</td>
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Teaching - Early Childhood to 6th Grade, Associate of Arts in Teaching

Shape the Next Generation
The world needs more teachers, perhaps more than any other profession. Unlike most career paths, teaching is a calling, one that takes a unique personality willing to listen to, learn from, and shape the students they will have in their classroom. If you feel an internal pull toward this field, obtaining an Associate of Arts in Teaching (AAT) degree from San Jacinto College is the best way to start.

Our AAT degree is transferable to Texas public universities and lays the initial foundation needed for a Texas teacher certification. Students will be exposed to the full spectrum of primary education and can specialize in teaching elementary, middle, or high school grade-level subjects. Students who complete the AAT will be required to meet any and all entrance requirements of the transferring university and the educator...
preparation program, including grade point averages and/or testing requirements.

- EC-6 AAT- This degree pathway is for students who want to teach early childhood through 6th grade. Students will gain knowledge across multiple disciplines so that those certified under EC-6 will have the skills to teach reading, writing, math, science, and history.
- 7-12 History AAT – This degree pathway is for students who want to teach history in grade levels 7-12.
- 7-12 Life Science AAT- This degree pathway is for students who want to teach biology or other life science courses in grade levels 7-12.
- 7-12 ELA AAT- This degree pathway is for students who want to teach English Language Arts in grade levels 7-12.

**Career Information**

Early childhood (preschool) teachers $24,024¹
Elementary school teachers $60,409¹
Middle school teachers $60,335¹
High school (secondary) teachers $60,049¹

¹ Source: [www.texaswages.com](http://www.texaswages.com), 2017 annual median salaries for Gulf Coast region

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

Students who complete the AAT at San Jacinto College 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.

**All Campuses**

1TEACH-EC6

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1350 &amp; MATH 1351</td>
<td>Mathematics for Teachers I (Fundamentals of Mathematics I) and Mathematics for Teachers II (Fundamentals of Mathematics II) (or equivalent)</td>
<td>6</td>
</tr>
<tr>
<td>EDUC 1301</td>
<td>Introduction to the Teaching Profession</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 2301</td>
<td>Introduction to Special Populations</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 1300</td>
<td>Learning Framework</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1300</td>
<td>Learning Framework</td>
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<tr>
<td>Academic elective (if successfully completed GUST 0305)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Select one of the following:**

- BCIS 1305 Business Computer Applications
- ITSC 1309 Integrated Software Applications I
- Academic elective (if student passes the computer literacy exam)

**CORE CURRICULUM**

**Communications**

Select two of the following:

- ENGL 1301 Composition I (required)
- ENGL 1302 Composition II
- ENGL 2311 Technical and Business Writing

**Mathematics**

Select one of the following:

- MATH 1314 College Algebra
- MATH 1316 Plane Trigonometry
- MATH 1324 Mathematics for Business and Social Sciences¹
- MATH 1325 Calculus for Business and Social Sciences¹
- MATH 1332 Contemporary Mathematics (Quantitative Reasoning)¹
- MATH 1342 Elementary Statistical Methods (Statistics)²
- MATH 2318 Linear Algebra
- MATH 2320 Differential Equations
- MATH 2412 Pre-Calculus Math
- MATH 2413 Calculus I
- MATH 2414 Calculus II

**Life and Physical Sciences (Natural Science)**

Select two of the following:

- ASTR 1303 Stars and Galaxies (lecture)
- ASTR 1304 The Solar System (lecture)
- BIOL 1306 Biology for Science Majors I (lecture)
- BIOL 1307 Biology for Science Majors II (lecture)
- BIOL 1308 Biology for Non-Science Majors I (lecture)⁴
- BIOL 1309 Biology for Non-Science Majors II (lecture)⁴
- BIOL 1311 General Botany
- BIOL 1313 General Zoology (lecture)
- BIOL 2301 Human Anatomy and Physiology I (lecture)⁵
- BIOL 2302 Human Anatomy and Physiology II (lecture)⁵
- CHEM 1305 Introductory Chemistry I (lecture)⁴
- CHEM 1311 General Chemistry I (lecture)
- CHEM 1312 General Chemistry II (lecture)
- GEOL 1301 Earth Sciences for Non-Science Majors I (lecture)⁴
- GEOL 1303 Physical Geology (lecture)
- GEOL 1304 Historical Geology (lecture)
- GEOL 1305 Environmental Science (lecture)
- PHYS 1301 College Physics I (lecture)
- PHYS 1302 College Physics II (lecture)
- PHYS 2325 University Physics I (lecture)
- PHYS 2326 University Physics II (lecture)

**Language, Philosophy, and Culture (Humanities)**

Select one of the following:

- ENGL 2322 British Literature I
- ENGL 2323 British Literature II
- ENGL 2327 American Literature I

[San Jacinto College 2019-2020](http://texaswages.com)
The Component Area Option includes the courses listed below as well as all other courses listed in the Core Curriculum that have not been used to fulfill a previous area of the Core. Select 6 semester credit hours (SCH) to fulfill this component.  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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 Communication</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>Beginning American Sign Language I</td>
</tr>
<tr>
<td>SGNL 1402</td>
<td>Beginning 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>

**Total Credits**: 48

1. MATH 1324 Mathematics for Business and Social Sciences, MATH 1325 Calculus for Business and Social Sciences, and MATH 1332 Contemporary Mathematics (Quantitative Reasoning) are not recommended for students pursuing mathematics or science.
2. MATH 1342 is required for a bachelor's degree in nursing.
3. Students must be simultaneously co-enrolled in the co-requisite science lab.
4. BIOL 1308 Biology for Non-Science Majors I (lecture), BIOL 1309 Biology for Non-Science Majors II (lecture) and CHEM 1305 Introductory Chemistry I (lecture), and GEOL 1301 Earth Sciences for Non-Science Majors I (lecture) do not meet the requirements for science majors.
5. BIOL 2301 Human Anatomy and Physiology I (lecture) and BIOL 2302 Human Anatomy and Physiology II (lecture) are designed for allied health majors and not for academic transfer as science majors.
6. 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.
7. 2 SCH in this option may include the labs for science courses.

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 plan core curriculum courses that would meet baccalaureate degree requirements at the four-year institution.
Teaching - Grades 7 to 12, Associate of Arts in Teaching

Shape the Next Generation
The world needs more teachers, perhaps more than any other profession. Unlike most career paths, teaching is a calling; one that takes a unique personality willing to listen to, learn from and shape the students they will have in their classroom. If you feel an internal pull toward this field, obtaining an Associate of Arts in Teaching (AAT) degree from San Jacinto College is the best way to start.

Our AAT degree is fully transferable to all Texas public universities and lays the initial foundation needed for a Texas teacher certification. Students will be exposed to the full spectrum of primary education and can specialize in teaching elementary, middle or high school grade-level subjects. Students who complete the AAT will be required to meet any and all entrance requirements of the transferring university and the educator preparation program, including grade point averages and/or testing requirements.

• 7-12 History AAT – This degree pathway is for students who want to teach history in grade levels 7-12.
• 7-12 Life Science AAT - This degree pathway is for students who want to teach biology or other life science courses in grade levels 7-12.
• 7-12 ELA AAT- This degree pathway is for students who want to teach English Language Arts in grade levels 7-12.
• EC-6 AAT– This degree pathway is for students who want to teach early childhood through 6th grade. Students will gain knowledge across multiple disciplines so that those certified under EC-6 will have the skills to teach reading, writing, math, science and history.

Career Information
Early childhood (preschool) teachers $32,232
Elementary school teachers $62,745
Middle school teachers $62,364
High school (secondary) teachers $62,122

1 Source: www.texaswages.com (http://texaswages.com) 2017 annual median salaries for Gulf Coast region

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

Students who complete the AAT at San Jacinto College 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.

All Campuses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 1301</td>
<td>Introduction to the Teaching Profession</td>
<td></td>
</tr>
<tr>
<td>EDUC 2301</td>
<td>Introduction to Special Populations</td>
<td></td>
</tr>
<tr>
<td>Content area teaching fields/academic disciplines</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
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</tbody>
</table>

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); and Component Area Option (090) as outlined in the Core Curriculum (p. 315)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EDUC 1300</td>
<td>Learning Framework</td>
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</tr>
<tr>
<td>PSYC 1300</td>
<td>Learning Framework</td>
<td></td>
</tr>
<tr>
<td>Academic elective (if successfully completed GUST 0305)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
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</tr>
<tr>
<td>BCIS 1305</td>
<td>Business Computer Applications</td>
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</tr>
<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
<td></td>
</tr>
<tr>
<td>Academic elective (if student passes the computer literacy exam)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CORE CURRICULUM

Communications
Select two of the following: 6
ENGL 1301 Composition I (required)
ENGL 1302 Composition II
ENGL 2311 Technical and Business Writing

Mathematics
Select one of the following: 3
MATH 1314 College Algebra
MATH 1316 Plane Trigonometry
MATH 1324 Mathematics for Business and Social Sciences
MATH 1325 Calculus for Business and Social Sciences
MATH 1332 Contemporary Mathematics (Quantitative Reasoning)
MATH 1342 Elementary Statistical Methods (Statistics)
MATH 2318 Linear Algebra
MATH 2320 Differential Equations
MATH 2412 Pre-Calculus Math
MATH 2413 Calculus I
MATH 2414 Calculus II

San Jacinto College 2019-2020
### Life and Physical Sciences (Natural Science)
Select two of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 1303</td>
<td>Stars and Galaxies (lecture)</td>
</tr>
<tr>
<td>ASTR 1304</td>
<td>The Solar System (lecture)</td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (lecture)</td>
</tr>
<tr>
<td>BIOL 1307</td>
<td>Biology for Science Majors II (lecture)</td>
</tr>
<tr>
<td>BIOL 1308</td>
<td>Biology for Non-Science Majors I (lecture)</td>
</tr>
<tr>
<td>BIOL 1309</td>
<td>Biology for Non-Science Majors II (lecture)</td>
</tr>
<tr>
<td>BIOL 1311</td>
<td>General Botany</td>
</tr>
<tr>
<td>BIOL 1313</td>
<td>Human Anatomy and Physiology I (lecture)</td>
</tr>
<tr>
<td>BIOL 1302</td>
<td>Human Anatomy and Physiology II (lecture)</td>
</tr>
<tr>
<td>CHEM 1305</td>
<td>Introductory Chemistry I (lecture)</td>
</tr>
<tr>
<td>CHEM 1311</td>
<td>General Chemistry I (lecture)</td>
</tr>
<tr>
<td>CHEM 1312</td>
<td>General Chemistry II (lecture)</td>
</tr>
<tr>
<td>GEOL 1301</td>
<td>Earth Sciences for Non-Science Majors I (lecture)</td>
</tr>
<tr>
<td>GEOL 1303</td>
<td>Physical Geology (lecture)</td>
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<tr>
<td>GEOL 1304</td>
<td>Historical Geology (lecture)</td>
</tr>
<tr>
<td>GEOL 1305</td>
<td>Environmental Science (lecture)</td>
</tr>
<tr>
<td>PHYS 1301</td>
<td>College Physics I (lecture)</td>
</tr>
<tr>
<td>PHYS 1302</td>
<td>College Physics II (lecture)</td>
</tr>
<tr>
<td>PHYS 2325</td>
<td>University Physics I (lecture)</td>
</tr>
<tr>
<td>PHYS 2326</td>
<td>University Physics II (lecture)</td>
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### Language, Philosophy, and Culture (Humanities)
Select one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 2322</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENGL 2323</td>
<td>British Literature II</td>
</tr>
<tr>
<td>ENGL 2327</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENGL 2328</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENGL 2332</td>
<td>World Literature I</td>
</tr>
<tr>
<td>ENGL 2333</td>
<td>World Literature II</td>
</tr>
<tr>
<td>ENGL 2341</td>
<td>Forms of Literature: Literature and Film</td>
</tr>
<tr>
<td>ENGL 2351</td>
<td>Mexican American Literature</td>
</tr>
<tr>
<td>GEOG 1302</td>
<td>Human Geography</td>
</tr>
<tr>
<td>HIST 2321</td>
<td>World Civilization I</td>
</tr>
<tr>
<td>HIST 2322</td>
<td>World Civilization II</td>
</tr>
<tr>
<td>HUMA 1301</td>
<td>Introduction to the Humanities I</td>
</tr>
<tr>
<td>PHIL 1301</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHIL 2306</td>
<td>Introduction to Ethics</td>
</tr>
</tbody>
</table>

### Creative Arts (Fine Arts)
Select one of the following: 3

<table>
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<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 1301</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ARTS 1303</td>
<td>Art History I (Prehistoric to the 14th century)</td>
</tr>
<tr>
<td>ARTS 1304</td>
<td>Art History II (14th century to the present)</td>
</tr>
<tr>
<td>DRAM 2303</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DRAM 1310</td>
<td>Introduction to Theater</td>
</tr>
<tr>
<td>DRAM 2366</td>
<td>Introduction to Cinema: Film Appreciation</td>
</tr>
<tr>
<td>MUSI 1306</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUSI 1307</td>
<td>Music Literature</td>
</tr>
<tr>
<td>MUSI 1310</td>
<td>American Music</td>
</tr>
</tbody>
</table>

### American History
Select two of the following: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HIST 1301</td>
<td>United States History I</td>
</tr>
<tr>
<td>HIST 1302</td>
<td>United States History II</td>
</tr>
<tr>
<td>HIST 2301</td>
<td>Texas History</td>
</tr>
<tr>
<td>HIST 2327</td>
<td>Mexican American History I</td>
</tr>
<tr>
<td>HIST 2328</td>
<td>Mexican American History II</td>
</tr>
</tbody>
</table>

### Government/Pollitical Science
Select two of the following: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOVT 2305</td>
<td>Federal Government (Federal Constitution and Topics)</td>
</tr>
<tr>
<td>GOVT 2306</td>
<td>Texas Government (Texas Constitution and Topics)</td>
</tr>
</tbody>
</table>

### Social and Behavioral Sciences
Select one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</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>Western Civilization I</td>
</tr>
<tr>
<td>HIST 2312</td>
<td>Western Civilization II</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>Minority Studies I</td>
</tr>
</tbody>
</table>

### Component Area Option
The Component Area Option includes the courses listed below as well as all other courses listed in the Core Curriculum that have not been used to fulfill a previous area of the Core. Select 6 semester credit hours (SCH) to fulfill this component. 7

<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>
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<td>SPCH 1318</td>
<td>Interpersonal Communication</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>
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<tr>
<td>SGNL 1402</td>
<td>Beginning 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>

### Total Credits
48

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1. MATH 1324 Mathematics for Business and Social Sciences, MATH 1325 Calculus for Business and Social Sciences, and MATH 1332 Contemporary Mathematics (Quantitative Reasoning) are not recommended for students pursuing mathematics or science.
2. MATH 1342 is required for a bachelor’s degree in nursing.
3. Students must be simultaneously co-enrolled in the co-requisite science lab.
4 BIOL 1308 Biology for Non-Science Majors I (lecture), BIOL 1309 Biology for Non-Science Majors II (lecture) and CHEM 1305 Introductory Chemistry I (lecture), and GEOL 1301 Earth Sciences for Non-Science Majors I (lecture) do not meet the requirements for science majors.

5 BIOL 2301 Human Anatomy and Physiology I (lecture) and BIOL 2302 Human Anatomy and Physiology II (lecture) are designed for allied health majors and not for academic transfer as science majors.

6 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.

7 2 SCH in this option may include the labs for science courses.

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 plan core curriculum courses that would meet baccalaureate degree requirements at the four-year institution.
HEALTH SCIENCES

- Cancer Data Management, Advanced Technical Certificate
- Cancer Data Management Specialty, Associate of Applied Science
- Emergency Medical Services, Associate of Applied Science
- Emergency Medical Services, Level 2 Certificate of Technology
- Eye Care Technology, Associate of Applied Science
- Eye Care Technology, Certificate of Technology
- Eye Care, Optician Preparatory, Occupational Certificate
- Health Information Management, Associate of Applied Science
- Health Science Medical Assisting Pathway, Associate of Applied Science
- Health Science Pharmacy Technician Pathway, Associate of Applied Science
- Health Science Vocational Nursing Pathway, Associate of Applied Science
- Medical Assisting, Certificate of Technology
- Medical Billing, Certificate of Technology
- Medical Coding Specialist, Level 2 Certificate
- Medical Imaging, Computed Tomography, Advanced Technical Certificate
- Medical Imaging, Diagnostic Medical Sonography, Associate of Applied Science
- Medical Imaging, Invasive Cardiovascular Technology, Advanced Technical Certificate
- Medical Imaging, Invasive Cardiovascular Technology, Associate of Applied Science
- Medical Imaging, Magnetic Resonance Imaging, Advanced Technical Certificate
- Medical Imaging, Mammography, Enhanced Skills Certificate
- Medical Laboratory Technology, Associate of Applied Science
- Medical Laboratory Technology, Microscopic Tissue Anatomy, Advanced Technical Certificate
- Medical Radiography, Associate of Applied Science
- Mental Health Clinical and Counseling Psychology, Associate of Applied Science
- Mental Health Technician, Occupational Certificate
- Mental Health, Substance Abuse Counseling, Level 2 Certificate
- Mental Health, Substance Abuse Prevention Specialist, Occupational Certificate
- Mental Health-Substance Abuse Counseling, Occupational Certificate
- Nursing, Associate Degree Nursing, Associate of Applied Science
- Nursing, LVN/Paramedic to RN Transition Nursing, Associate of Applied Science
- Nursing, Vocational Nursing, Level 2 Certificate
- Occupational Therapy Assistant, Associate of Applied Science
- Pharmacy Technician, Certificate of Technology
- Physical Education Personal Trainer, Certificate of Technology
- Physical Therapist Assistant, Associate of Applied Science
- Respiratory Care, Associate of Applied Science
- Surgical Technology, Associate of Applied Science
- Surgical Technology, Certificate of Technology

Emergency Medical Services,
Associate of Applied Science

Program Information

Have you always wanted a career helping others? Are you passionate about making a difference? An emergency medical services (EMS) certificate from San Jacinto College can prepare you for certification in a health care field that can lead to a career in EMS or other related fields. Each year in the US, about 240 million calls are made to 911 for emergency medical assistance, which means just about every minute someone urgently needs help, your help. If you qualify, next time you could be the one receiving a call for emergency help. Are you ready?

The San Jacinto College emergency medical services program:

- Combines classroom lectures and lab skills with real time clinical patient treatment experience in hospitals and on ambulances. EMS training at San Jacinto College utilizes modern classroom facilities and state-of-the-art skills laboratory equipment to prepare students to be competent and qualified emergency medical personnel;
- Provides live hospital clinical and 911 ambulance (EMS) patient-care experiences to give students practical experience in the workplace during training. Students apply knowledge and skills learned in the classroom in real life patient treatment situations, supervised by experienced clinical faculty and preceptors; and
- Is taught by faculty carefully selected based on their knowledge, teaching abilities, previous education, and EMS field experience. San Jacinto College EMS faculty are committed to student success by providing quality education and training. Many are well known and highly respected throughout the EMS community.
Accreditation

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The Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 North, Suite 158
Clearwater, FL 33756
727-210-2350
www.caahep.org

Continuing Education activities are accredited by:

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12300 Ford Road, Suite 350
Dallas, TX 75234
972-247-4442

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The Exchange Building
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Austin, TX 78754
512-834-6700

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6610 Busch Blvd.
Columbus, Ohio 43229
614-888-4484

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Career Opportunities

Graduates of our program have numerous opportunities for employment and growth in their education. Although career placement as a certified EMT, Advanced EMT, or Paramedic does not require the completion of an associate degree, students who do complete the degree have greater career opportunities and are eligible to become licensed paramedics by the Texas Department of State Health Services.

Most graduates continue their careers in the EMS field and are employed by:

- Public agencies such as municipal or county 911 EMS, fire departments, and police departments (SWAT Tactical Medics),
- Private EMS services,
- Hospitals,
- Helicopter or fixed-wing air ambulance services,
- Staff medics with offshore oil and gas exploration companies, and
- Contractors working in developing and recovering countries.

* Source: EMS Workforce for the 21st Century: A National Assessment

Graduate opportunities may also extend beyond traditional EMS roles:

- Nursing
- Law Enforcement
- Firefighting
- Occupational Health and Safety
- Health Care Administration
- Education
- Physician Assistant or Medical Doctor

Earning Potential

Emergency Medical Technician & Paramedics median salary $34,816 per year

1 Source: texaswages.com, Gulf Coast region, 2017

For more information, please contact 281-998-6150, x7301.

Campuses

Central Campus
North Campus

Information

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North Campus is accredited by:

Texas Department of State Health Services EMS and Trauma Systems
1100 West 49th Street
Austin, TX 78765-3199
Office: (512) 458-7111; and

Commission on Accreditation of Allied Health Education Programs (CAAHEP), through the Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP)
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Rowlett, Texas 75088
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Program Enrollment
A criminal background check and/or drug screening is required of all health science students attending clinical courses or practicums and may be required prior to admission to the program.

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.

For information on course offerings and enrollment requirements please visit the Emergency Medical Services program web page (https://www.sanjac.edu/program/emergency-medical-technology).

Emergency Medical Services Program Requirements
EMS practitioners are held to the highest standards of professional and ethical conduct. This expectation extends to education programs, their faculty, students, clinical affiliates and EMS services. Students and prospective students must be able to demonstrate good professional characteristics to be eligible for entry and licensure with TDSHS.

Texas Administration Code Background Statement

**Note:** Pursuant to Rule 157.12 for the Texas Administrative Code (TAC), a person who has any arrests, criminal charges or indictments, criminal investigations, motions to revoke probation, etc. of any crime may be disqualified from obtaining licensure as an EMS Professional.

If you have any questions regarding past incidents, contact the TDSHS at their website https://www.dshs.state.tx.us/emstraumasystems/default.shtm or you can call them at (512) 834-6700. A criminal background check and/or drug screen must been conducted by a designated investigative agency at the expense of the student. This background check must be completed before registering for classes and may be required prior to admission to the program.

For information on course offerings and enrollment requirements please visit the Emergency Medical Services program web page (https://www.sanjac.edu/program/emergency-medical-technology).

Order Background Check and Drug Screen
Students must submit results from a background investigation. This process can be done through Castle Branch at www.castlebranch.com (http://www.castlebranch.com). Package Code: SQ29

**All EMS program students must purchase and complete CastleBranch requirements before the start of class.**

The State of Texas and our EMS program require you provide a current (within 1 year) criminal background check and drug screen. Our program utilizes a third party vendor to obtain these records. You can order your background and drug screen at www.castlebranch.com (http://www.castlebranch.com) using the package code SQ29. This package also includes review of all of your immunizations records (please see requirements below) and physical form. The package costs $86.00. Please purchase the account prior to the start of class.

Update Immunizations
All immunizations must be current and must not expire during the program.

- Tetanus (td/tdap) [within the past 9 years]
- TB (PPD) skin test, Chest X-ray (within 4 years), or Quantiferon test [within the past 9 months]
- Seasonal flu shot or proof of allergy to the flu shot
- 2 MMR shots or titer that shows immunity
- 2 Varicella shots or titer that shows immunity
- HEP B series of 3 shots or titer that shows immunity
- HEP C Antibody

Physical Examination

Applicants must pass a program approved physical. The physical form is available on the San Jacinto College EMS webpage (https://www.sanjac.edu/program/emergency-medical-technology).

All EMS students will be required to purchase the "Nav2 Premier Package" access code along with either the e-book or printed textbook package. The college bookstore has books available for you to purchase or you may purchase them at a vendor of your choice.


Paramedic Program Student Outcomes

Upon completion of the paramedic program, the student is eligible to sit for the NREMT Certification Examination.

The three-year outcome report is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Pass Rate</th>
<th>Retention Rate</th>
<th>Positive Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>61%</td>
<td>86%</td>
<td>83%</td>
</tr>
<tr>
<td>2016</td>
<td>88%</td>
<td>68%</td>
<td>53%</td>
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<tr>
<td>2017</td>
<td>43%</td>
<td>67%</td>
<td>100%</td>
</tr>
<tr>
<td>3-year avg.</td>
<td>64%</td>
<td>73.66%</td>
<td>78.66%</td>
</tr>
</tbody>
</table>

Pass rate is based on first-time attempt.

The positive placement rate, as defined by CAAHEP based on graduates of the paramedic program who are reporting working in either a full-time or part-time position as a paramedic within twelve months of graduation, continuing their education, or serving in the military.

Plan of Study

Central and North Campuses
### Emergency Medical Services, Level 2 Certificate of Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td><strong>First Term</strong></td>
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<tr>
<td>EMSP 1501</td>
<td>Emergency Medical Technician</td>
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<td>EMSP 1160</td>
<td>Clinical-Emergency Medical Technician</td>
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<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>BIOL 2301 &amp; BIOL 2101</td>
<td>Human Anatomy and Physiology I (lecture) and Human Anatomy and Physiology I (lab)</td>
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<tr>
<td><strong>Credits</strong></td>
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<tr>
<td><strong>Second Term</strong></td>
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<tr>
<td>EMSP 1338</td>
<td>Introduction to Advanced Practice</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 1356</td>
<td>Patient Assessment and Airway Management</td>
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<tr>
<td>EMSP 1355</td>
<td>Trauma Management</td>
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</tr>
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<td>EMSP 1260</td>
<td>Clinical - Advanced Emergency Medical Technology</td>
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</tr>
<tr>
<td>BIOL 2302 &amp; BIOL 2102</td>
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<td>EMSP 2444</td>
<td>Cardiology</td>
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<td>EMSP 2206</td>
<td>Emergency Pharmacology</td>
<td>2</td>
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<td>EMSP 2237</td>
<td>Emergency Procedures</td>
<td>2</td>
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<tr>
<td>PHIL 2306</td>
<td>Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1332 or MATH 1314</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher) or College Algebra</td>
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<td><strong>Fourth Term</strong></td>
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</tr>
<tr>
<td>EMSP 2434</td>
<td>Medical Emergencies</td>
<td>4</td>
</tr>
<tr>
<td>EMSP 2330</td>
<td>Special Populations</td>
<td>3</td>
</tr>
<tr>
<td>EMSP 2262</td>
<td>Clinical - EMT Paramedic</td>
<td>2</td>
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<td>PSYC 2301</td>
<td>General Psychology</td>
<td>3</td>
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<td><strong>Credits</strong></td>
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<td><strong>Summer Year Two Term</strong></td>
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<tr>
<td>EMSP 2243</td>
<td>Assessment Based Management</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 2205</td>
<td>EMS Operations</td>
<td>2</td>
</tr>
<tr>
<td>EMSP 2268</td>
<td>Emergency Medical Technician Paramedic Practicum</td>
<td>2</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
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<td><strong>6</strong></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>60</strong></td>
</tr>
</tbody>
</table>

**Capstone Experience:** EMSP 2268 Emergency Medical Technician Paramedic Practicum

**Note:** Students must pass each course listed in the degree or certificate for Emergency Medical Services with a grade of C or higher to be eligible to receive a degree or certificate.

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**EMS Program Information Sessions and Mandatory Semester Orientation**

All EMS students (new and returning) must attend one program information session and the mandatory semester orientation prior to course start date (Session dates and times located on EMS Program Web Page).

**Order Background Check and Drug Screen**

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- EMT Basic Textbook: Emergency Care and Transportation of the Sick and Injured 11th Edition w/ Navigate 2 Premier Access

**Paramedic Program Student Outcomes**

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**Plan of Study**

**Central and North Campus**

**5EMS**

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</tr>
<tr>
<td>EMSP 1501</td>
<td>Emergency Medical Technician</td>
<td>5</td>
</tr>
<tr>
<td>EMSP 1160</td>
<td>Clinical-Emergency Medical Technician</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 2404</td>
<td>Introduction to Anatomy and Physiology (lecture &amp; lab)</td>
<td>4</td>
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<td><strong>Second Term</strong></td>
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<td></td>
</tr>
<tr>
<td>EMSP 1338</td>
<td>Introduction to Advanced Practice</td>
<td>3</td>
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</tbody>
</table>
EMSP 1356  Patient Assessment and Airway Management  3
EMSP 1355  Trauma Management  3
EMSP 1260  Clinical - Advanced Emergency Medical Technology  2

Credits  11

Third Term
EMSP 2444  Cardiology  4
EMSP 2206  Emergency Pharmacology  2
EMSP 2237  Emergency Procedures  2

Credits  8

Fourth Term
EMSP 2434  Medical Emergencies  4
EMSP 2330  Special Populations  3
EMSP 2262  Clinical - EMT Paramedic II  2

Credits  9

Summer Year Two Term
EMSP 2243  Assessment Based Management  2
EMSP 2268  Emergency Medical Technician Paramedic Practicum  2
EMSP 2205  EMS Operations  2

Credits  6

Total Credits  44

Capstone Experience: EMSP 2268 Emergency Medical Technician Paramedic Practicum

1 Students who believe they may pursue an Associate of Applied Science degree in Emergency Medical Services (3EMS) in the future should complete BIOL 2301 Human Anatomy and Physiology I (lecture) and BIOL 2101 Human Anatomy and Physiology I (lab); and BIOL 2302 Human Anatomy and Physiology II (lecture) and BIOL 2102 Human Anatomy and Physiology II (lab).

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Eye Care Technology, Associate of Applied Science

of licensed eye care professionals, then the San Jacinto College eye care technology program is for you.

Through our nationally recognized program, students learn a variety of skills including:

• Obtaining histories,
• Performing diagnostic tests,
• Understanding refractometry,
• Recording functional ocular measurements and tests,
• Administering topical ophthalmic and oral medications,
• Instructing patients,
• Maintaining equipment,
• Sterilizing surgical instruments,
• Assisting in ophthalmic surgery,
• Fitting of contact lenses, and
• Practicing opticianry.

The San Jacinto College eye care technology program is accredited by the International Council of Accreditation (ICA). The program requires formal entry via an interview with the program director. Only those students who have been officially admitted to the College and have met the eye care technology admission criteria will be considered. The department offers three graduation options, Occupational Certificate, Certificate of Technology, and Associate of Applied Science (AAS) degree. It is designed to connect the classroom and laboratory training with external clinical instruction at leading ophthalmic centers and practices.

Additional Information

All health care students are subject to criminal background and drug screening checks prior to entry.

The program begins fall term only. Students who miss the fall entry may discuss entry options with the program director.

The University of Houston Downtown currently accepts AAS degrees into their Bachelor of Applied Arts and Sciences in Applied Administration (BAA-AA); please contact Diane Vo at 713-221-8522. For the Bachelor of Science (BS) degree in Applied Statistics with a Biostatistics concentration, please contact Ms. Tones at 713-221-8905.

Career Opportunities

Graduates of our eye care technology program have found employment in many areas of the eye care industry, including:

• Clinical Research Technicians,
• Contact Lens Technicians,
• Field Service Technicians,
• Ophthalmic Assistants,
• Ophthalmic Surgical Assistants,
• Ophthalmic Technicians,
• Opticians,
• Optometric Assistants, and
• Retinal Photographers.

Eye Care Technology, Associate of Applied Science

Program Information

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• Obtaining histories,
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• Understanding refractometry,
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• Instructing patients,
• Maintaining equipment,
• Sterilizing surgical instruments,
• Assisting in ophthalmic surgery,
• Fitting of contact lenses, and
• Practicing opticianry.

The San Jacinto College eye care technology program is accredited by the International Council of Accreditation (ICA). The program requires formal entry via an interview with the program director. Only those students who have been officially admitted to the College and have met the eye care technology admission criteria will be considered. The department offers three graduation options, Occupational Certificate, Certificate of Technology, and Associate of Applied Science (AAS) degree. It is designed to connect the classroom and laboratory training with external clinical instruction at leading ophthalmic centers and practices.

Additional Information

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The University of Houston Downtown currently accepts AAS degrees into their Bachelor of Applied Arts and Sciences in Applied Administration (BAA-AA); please contact Diane Vo at 713-221-8522. For the Bachelor of Science (BS) degree in Applied Statistics with a Biostatistics concentration, please contact Ms. Tones at 713-221-8905.

Career Opportunities

Graduates of our eye care technology program have found employment in many areas of the eye care industry, including:

• Clinical Research Technicians,
• Contact Lens Technicians,
• Field Service Technicians,
• Ophthalmic Assistants,
• Ophthalmic Surgical Assistants,
• Ophthalmic Technicians,
• Opticians,
• Optometric Assistants, and
• Retinal Photographers.

Eye Care Technology, Associate of Applied Science

Program Information

If you've always been fascinated by the human eye and have the desire to develop the knowledge base to perform skills under the supervision of licensed eye care professionals, then the San Jacinto College eye care technology program is for you.

Through our nationally recognized program, students learn a variety of skills including:

• Obtaining histories,
• Performing diagnostic tests,
• Understanding refractometry,
• Recording functional ocular measurements and tests,
• Administering topical ophthalmic and oral medications,
• Instructing patients,
• Maintaining equipment,
• Sterilizing surgical instruments,
• Assisting in ophthalmic surgery,
• Fitting of contact lenses, and
• Practicing opticianry.

The San Jacinto College eye care technology program is accredited by the International Council of Accreditation (ICA). The program requires formal entry via an interview with the program director. Only those students who have been officially admitted to the College and have met the eye care technology admission criteria will be considered. The department offers three graduation options, Occupational Certificate, Certificate of Technology, and Associate of Applied Science (AAS) degree. It is designed to connect the classroom and laboratory training with external clinical instruction at leading ophthalmic centers and practices.

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• Recording functional ocular measurements and tests,
• Administering topical ophthalmic and oral medications,
• Instructing patients,
• Maintaining equipment,
• Sterilizing surgical instruments,
Earning Potential

Certified Ophthalmic Technicians average salary: $51,733 per year

Certified Ophthalmic Assistant average salary: $42,500 per year

1 Source: Association of Technical Personnel in Ophthalmology

For more information, please contact 281-478-3606.

Campus

Central Campus

Information

A criminal background check and drug screening are 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 (AAS) degree. 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 International Council on Accreditation (ICA). Those graduates of the AAS degree 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 face-to-face, 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 students must earn a C or better in all eye care courses and maintain an overall cumulative GPA of at least 2.0 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.

Plan of Study

Central Campus

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<td>Composition I</td>
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Capstone Experience: OPTS 2366 Practicum - Optician/Ophthalmic Dispensing Optician

Eye Care Technology, Certificate of Technology
Program Information

If you've always been fascinated by the human eye and have the desire to develop the knowledge base to perform skills under the supervision of licensed eye care professionals, then the San Jacinto College eye care technology program is for you.

Through our nationally recognized program, students learn a variety of skills including:

- Obtaining histories,
- Performing diagnostic tests,
- Understanding refraction theory,
- Recording functional ocular measurements and tests,
- Administering topical ophthalmic and oral medications,
- Instructing patients,
- Maintaining equipment,
- Sterilizing surgical instruments,
- Assisting in ophthalmic surgery,
- Fitting of contact lenses, and
- Practicing opticianry.

The San Jacinto College eye care technology program is accredited by the International Council of Accreditation (ICA). The program requires formal entry via an interview with the program director. Only those students who have been officially admitted to the College and have met the eye care technology admission criteria will be considered. The department offers three graduation options, Occupational Certificate, Certificate of Technology, and Associate of Applied Science (AAS) degree. It is designed to connect the classroom and laboratory training with external clinical instruction at leading ophthalmic centers and practices.

Additional Information

All health care students are subject to criminal background and drug screening checks prior to entry. The program begins fall term only. Students who miss the fall entry may discuss entry options with the program director.

The University of Houston Downtown currently accepts AAS degrees into their Bachelor of Applied Arts and Sciences in Applied Administration (BAA-AA); please contact Diane Vo at 713-221-8522. For the Bachelor of Science (BS) degree in Applied Statistics with a Biostatistics concentration, please contact Ms. Tones at 713-221-8905.

Career Opportunities

Graduates of our eye care technology program have found employment in many areas of the eye care industry, including:

- Clinical Research Technicians,
- Contact Lens Technicians,
- Field Service Technicians,
- Ophthalmic Assistants,
- Ophthalmic Surgical Assistants,
- Ophthalmic Technicians,
- Opticians,
- Optometric Assistants, and
- Retinal Photographers.

Earning Potential

Certified Ophthalmic Technicians average salary: $51,733 per year
Certified Ophthalmic Assistant average salary: $42,500 per year

1 Source: Association of Technical Personnel in Ophthalmology

For more information, please contact 281-478-3606.

Campus

Central Campus

Information

A criminal background check and drug screening are required for all Health Science students attending clinical courses or practicum, and may be required prior to admission to the program.

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Plan of Study

Central Campus

4EYE

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<th>Course</th>
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<th>Credits</th>
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<tr>
<td>OPTS 1311</td>
<td>Visual System</td>
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</table>
Eye Care, Optician Preparatory, Occupational Certificate

Program Information

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- Ophthalmic Technicians,
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- Optometric Assistants, and
- Retinal Photographers.

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Source: Association of Technical Personnel in Ophthalmology

For more information, please contact 281-478-3606.

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Central Campus

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### Plan of Study

**Central Campus**

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<tr>
<td>OPTS 1401</td>
<td>Ophthalmic Dispensing</td>
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<td>OPTS 1311</td>
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<td><strong>Credits</strong></td>
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<td>OPTS 2431</td>
<td>Advanced Ophthalmic Dispensing</td>
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<td>OPTS 1167</td>
<td>Practicum - Opticianry/Ophthalmic</td>
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<td>Dispensing Optician</td>
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<td><strong>Third Term</strong></td>
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<td>OPTS 2167</td>
<td>Practicum Opticianry/Ophthalmic Dispensing</td>
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<td>OPTS 1309</td>
<td>Ophthalmic Laboratory I</td>
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**Capstone Experience:** OPTS 2167 Practicum Opticianry/Ophthalmic Dispensing Optician

### Health Information Management, Associate of Applied Science

#### Program Information

If you possess stellar organizational, technological, and people skills and are interested in a career in health care, then San Jacinto College’s health information management program is the career path for you. This program is designed to train future health information management technicians 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 program is accredited by the Commission on Accreditation for Health Information and Information Management (CAHIIM). Upon completion of this program, the student is eligible to apply to take the national Registered Health Information Technician (RHIT) examination, administered by the American Health Information Management Association.

### Career Opportunities

A career in health information management combines patient care management and technology in various professional work settings including:

- Hospitals
- Physician’s offices/clinics
- Law firms
- Insurance companies
- Long-Term care (nursing homes)
- Home Health
- Hospice
- Behavioral Health
- Health information technology software vendors

### Earning Potential

**State average salary by job category¹:**

Texas Health Information Technician average salary: $41,512

**National average salary by credential²:**

Registered Health Information Management Technician (RHIT) average salary: $60,930

**National average salary by job level²:**
Cancer Data Management, Associate of Applied Science

Clerical/Administrative: $35,650
Coding Professional: $54,730
Supervisor: $60,280
Analyst: $66,120

Source: https://texaswages.com
Source: https://my.ahima.org/careermap

For more information, please email HealthInformationManagement@sjcd.edu or call 281-459-7608.

Campus
North Campus

Information
This Program includes one clinical (practicum) course. Clinicals are unpaid positions in which students are supervised by a health information management professional at the healthcare facility. Clinicals are scheduled during the day shift according to the availability of the site supervisor. The Program cannot guarantee a specific site, but every effort will be made to accommodate the student. Students are responsible for their own transportation to and from the clinical site. A criminal background check is required of all Program students and must be submitted prior to enrollment in the clinical course. Documentation of immunity to Measles, Mumps, Rubella and Varicella, completion of the Hepatitis B series and annual Tuberculosis screening are also required prior to enrollment in the clinical course. Drug screening may be required by the clinical site.

Plan of Study
North Campus

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<td>ITSC 1309</td>
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<tr>
<td>or BCIS 1305</td>
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<td>HITT 2371</td>
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HITT 1345  Health Care Delivery Systems 3

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Credits 11

Total Credits 60

1 Students must be Texas Success Initiative (TSI) complete in order to graduate: Math level 8.

External Learning Experience: HITT 2361 Clinical-Health Information/Medical Records Technology/Technician

National Certification Exam: Registered Health Information Technician (RHIT)

Note: Students must pass each HITT course listed in the health information management AAS degree plan with a grade of C or higher to be eligible to receive either the degree.

Cancer Data Management, Associate of Applied Science

Join the Fight against Cancer
Each year, researchers and medical practitioners make astounding strides in cancer research and treatment all around the world. You can become a key player in this exciting process by studying Cancer Data Management at San Jacinto College. Cancer breakthroughs are made primarily by a global accumulation of data that doctors and researchers use to develop and fine-tune treatments. Hospitals, cancer organizations,
and state and national governments maintain cancer registries to collect this data, and they need help from dedicated specialists.

Cancer registries collect, store, manage, and analyze data on people with cancer. They establish and maintain a cancer incidence reporting system, serve as an information resource for cancer research, and provide information to assist public health officials and agencies. For example, physicians need cancer data to learn more about the causes of cancer to be able to detect it earlier. Cancer registrars are trained to collect accurate, complete, and timely data.

The Associate of Applied Science (AAS) degree in Cancer Data Management is designed to teach all aspects of the cancer registry, including survey processes, collection and abstraction of data, oncology coding, staging, and reporting. Upon completion of this program, the student is eligible to apply to take the national Certified Tumor Registrar (CTR) examination, administered by the National Cancer Registrars Association.

Accredited By
The Associate of Applied Science Degree in Cancer Data Management is accredited by the National Cancer Registrars Association (NCRA).

Career Opportunities
Upon completing our program, students may pursue careers in cancer registry management in a hospital setting, free-standing state or national cancer registry, or in any of the state or national cancer organizations.

Earning Potential
Enter our associate degree program and you will learn all aspects of survey processes, data collection, abstracting, coding, staging, and reporting.

The average salary for a Cancer Registrar/Abstractor is $54,049 per year.¹


For more information, please email HealthInformationManagement@sjcd.edu or call 281-459-7608.

Campus
North Campus

This Program includes one clinical (practicum) course. Clinicals are unpaid experiences in which students are supervised by a CTR professional at the healthcare facility. Clinicals are scheduled during the day shift according to the availability of the site supervisor. The Program cannot guarantee a specific site, but every effort will be made to accommodate the student. Students are responsible for their own transportation to and from the clinical site. A criminal background check is required of all Program students and must be submitted prior to enrollment in the clinical course. Documentation of immunity to Measles, Mumps, Rubella, and Varicella, completion of the Hepatitis B series and annual Tuberculosis screening are also required prior to enrollment in the clinical course. Drug screening may be required by the clinical site.

Admission Criteria
Students are admitted annually into the Cancer Data Management Program. In addition to the general admission requirements of San Jacinto College, prospective students must meet the Cancer Data Management admission criteria.

Plan of Study
North Campus
3HITT-CAN

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>HITT 1305</td>
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<td>Pathophysiology and Pharmacology</td>
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<td>ITSC 1309 or BCIS 1305</td>
<td>Integrated Software Applications I or Business Computer Applications</td>
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<tr>
<td>BIOL 2404</td>
<td>Introduction to Anatomy and Physiology (lecture &amp; lab) or BIOL 2301 and BIOL 2101 and BIOL 2302 and BIOL 2102)</td>
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<tr>
<td>HITT 1307</td>
<td>Cancer Data Management I: Introduction to Cancer Registry Management</td>
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<td>HITT 2307</td>
<td>Cancer Data Management II: Abstracting Principles and Practices I</td>
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<td>HITT 2372</td>
<td>Oncology Coding and Staging</td>
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<td>HITT 1301</td>
<td>Health Data Content and Structure</td>
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<td>Third Term</td>
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<td>HITT 1255</td>
<td>Healthcare Statistics: Cancer Epidemiology and Statistics</td>
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<td>HITT 1361</td>
<td>Clinical-Cancer Data Management</td>
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<td>Composition I</td>
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<td>PSYC 2301</td>
<td>General Psychology</td>
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<td>HITT 2343</td>
<td>Quality Assessment and Performance Improvement</td>
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<tr>
<td>HITT 2339</td>
<td>Health Information Organization and Supervision</td>
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<td>MATH 1342</td>
<td>Elementary Statistical Methods (Statistics)</td>
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</table>

¹ Students must be Texas Success Initiative (TSI) complete in order to graduate: Math level 8.
External Learning Experience: HITT 1361 Clinical-Cancer Data Management

National Certification Exam: Certified Tumor Registrar (CTR)

Note: Students must pass each HITT course listed in the cancer data management AAS degree plan with a grade of C to be eligible to receive the degree.

Cancer Data Management, Advanced Technical Certificate

Join the Fight against Cancer

Each year, researchers and medical practitioners make astounding strides in cancer research and treatment all around the world. You can become a key player in this exciting process by studying Cancer Data Management at San Jacinto College. Cancer breakthroughs are made primarily by a global accumulation of data that doctors and researchers use to develop and fine-tune treatments. Hospitals, cancer organizations, and state and national governments maintain cancer registries to collect this data, and they need help from dedicated specialists.

Cancer registries collect, store, manage, and analyze data on people with cancer. They establish and maintain a cancer incidence reporting system, serve as an information resource for cancer research, and provide information to assist public health officials and agencies. For example, physicians need cancer data to learn more about the causes of cancer to be able to detect it earlier. Cancer registrars are trained to collect accurate, complete, and timely data.

The Advanced Technical Certificate in Cancer Data Management is designed to teach all aspects of the cancer registry, including survey processes, collection and abstraction of data, oncology coding, staging, and reporting. Upon completion of this program, the student is eligible to apply to take the national Certified Tumor Registrar (CTR) examination, administered by the National Cancer Registrars Association.

Accredited By

The Advanced Technical Certificate in Cancer Data Management is accredited by the National Cancer Registrars Association (NCRA).

Career Opportunities

Upon completing our program, students may pursue careers in cancer registry management in a hospital setting, free-standing state or national cancer registry, or in any of the state or national cancer organizations.

Earning Potential

Enter our program and you will learn all aspects of survey processes, data collection, abstracting, coding, staging, and reporting.

The average salary for a Cancer Registrar/Abstractor is $57,049 per year.¹


For more information, please email HealthInformationManagement@sjcd.edu or call 281-459-7608.

Campus

North Campus

This Program includes one clinical (practicum) course. Clinicals are unpaid positions in which students are supervised by a CTR professional at the healthcare facility. Clinicals are scheduled during the day shift according to the availability of the site supervisor. The Program cannot guarantee a specific site, but every effort will be made to accommodate the student. Students are responsible for their own transportation to and from the clinical site. A criminal background check is required of all Program students and must be submitted prior to enrollment in the clinical course. Documentation of immunity to Measles, Mumps, Rubella, and Varicella, completion of the Hepatitis B series, and annual Tuberculosis screening are also required prior to enrollment in the clinical course. Drug screening may be required by the clinical site.

Admission Criteria

Students are admitted annually into the Cancer Data Management Program. In addition to the general admission requirements of San Jacinto College, prospective students must meet the Cancer Data Management admission criteria.

Candidates applying for admission into the Cancer Data Management Advanced Technical Certificate Program must already hold a minimum of an associate degree.

Plan of Study

North Campus

AHITT-CAN

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>First Term</td>
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<tr>
<td>HITT 1305</td>
<td>Medical Terminology I</td>
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<td>HITT 2371</td>
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<td>Second Term</td>
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<tr>
<td>HITT 1307</td>
<td>Cancer Data Management I: Introduction to Cancer Registry Management</td>
<td>3</td>
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</table>
## Medical Billing, Certificate of Technology

### Program Information

Medical billing professionals process and follow-up on claims submitted to health insurance companies for reimbursement of services performed by healthcare providers, such as physicians.

The Certificate of Technology in Medical Billing is designed to teach all aspects of billing and medical coding. Upon completion of this program, students are eligible to apply to take the national Certified Professional Biller (CPB) examination or the Certified Professional Coder (CPC) examination, administered by the American Association of Professional Coders.

### Career Opportunities

Program graduates are qualified for entry-level positions such as medical claims specialists, billing specialists and medical coders in physicians' offices, clinics, insurance companies, and other ambulatory care facilities.

### External Learning Experience: HIT 1361 Clinical-Cancer Data Management

### National Certification Exam: Certified Tumor Registrar (CTR)

**Note:** Students must pass each HIT course listed in the cancer data management advanced technical certificate plan with a grade of C or higher to be eligible to receive the certificate.

### Earning Potential

**State average salary by job category:**
- Texas Billing and Posting Clerk average salary: $36,692

**National average salary by job responsibility:**
- Coding/Billing: $45,775

**National average salary by credential:**
- Certified Professional Biller (CPB) average salary: $52,333
- Certified Professional Coder (CPC) average salary: $54,401

1. Source: [https://texaswages.com](https://texaswages.com)
2. Source: [https://www.aapc.com](https://www.aapc.com)

For more information, please email [HealthInformationManagement@sjcd.edu](mailto:HealthInformationManagement@sjcd.edu) or call 281-459-7608.

### Campus

**North Campus**

This Program includes one clinical (practicum) course. Clinicals are unpaid experiences in which students are supervised by a billing professional at the healthcare facility. Clinicals are scheduled during the day shift according to the availability of the site supervisor. The Program cannot guarantee a specific site, but every effort will be made to accommodate the student. Students are responsible for their own transportation to and from the clinical site. A criminal background check is required of all Program students and must be submitted prior to enrollment in the clinical course. Documentation of immunity to Measles, Mumps, Rubella, and Varicella, completion of the Hepatitis B series and annual Tuberculosis screening are also required prior to enrollment in the clinical course. Drug screening may be required by the clinical site.

### Plan of Study

**North Campus**

4HITT-MDBC

### Course

#### Credits

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<td>HIT 1374</td>
<td>Anatomy and Physiology</td>
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<td>HIT 1378</td>
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<tr>
<td>or BCIS 1305</td>
<td>or Business Computer Applications</td>
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### First Term

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<tr>
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<tr>
<td>HIT 1342</td>
<td>Ambulatory Coding</td>
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</tr>
<tr>
<td>HIT 1311</td>
<td>Health Information Systems</td>
<td>3</td>
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<td>HIT 1353</td>
<td>Legal and Ethical Aspects of Health Information</td>
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### Second Term

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San Jacinto College 2019-2020
Medical Coding Specialist, Level 2 Certificate

Program Information
Medical coding professionals review health record documentation and convert medical diagnoses, procedures, services and equipment into medical codes that are required for billing and reimbursement.

The Certificate of Technology in Medical Coding is designed to teach all aspects of medical coding. Upon completion of this program, students are eligible to apply to take the national Certified Coding Associate (CCA) and Certified Coding Specialist (CCS) examinations, administered by the American Health Information Management Association (AHIMA); as well as the Certified Professional Coder (CPC) examination, administered by the American Association of Professional Coders (AAPC).

Opportunities
Program graduates are qualified for entry-level medical coding specialist positions in all healthcare settings such as hospitals, physicians’ offices and clinics.

Earning Potential
National average salary by credential:
Certified Coding Associate (CCA) average salary: $47,780
Certified Coding Specialist (CCS) average salary: $70,030

National average salary by job level:
Coding Professional: $54,730

1 Source: https://my.ahima.org/careermap

For more information, please email HealthInformationManagement@sjcd.edu or call 281-459-7608.

Campus
North Campus
This Program includes one clinical (practicum) course. Clinicals are unpaid experiences in which students are supervised by a coding professional at the healthcare facility. Clinicals are scheduled during the day shift according to the availability of the site supervisor. The Program cannot guarantee a specific site, but every effort will be made to accommodate the student. Students are responsible for their own transportation to and from the clinical site. A criminal background check is required of all Program students and must be submitted prior to enrollment in the clinical course. Documentation of immunity to Measles, Mumps, Rubella, and Varicella, completion of the Hepatitis B series and annual Tuberculosis screening are also required prior to enrollment in the clinical course. Drug screening may be required by the clinical site.

Plan of Study
North Campus
5HITT-MDC

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<td>HITT 1301</td>
<td>Health Data Content and Structure</td>
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<td>Second Term</td>
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<td>HITT 2371</td>
<td>Pathophysiology and Pharmacology</td>
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</tr>
<tr>
<td>HITT 1345</td>
<td>Health Care Delivery Systems</td>
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<tr>
<td>HITT 1341</td>
<td>Coding and Classification Systems</td>
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External Learning Experience: HITT 1360 Clinical-Health Information/Medical Records Technology/Technician

National Certification Exam: Certified Coding Specialist (CCS), Certified Coding Associate (CCA) or Certified Professional Coder (CPC).

Note: Students must pass each HITT course listed in the medical coding specialist level 2 certificate of technology plan with a grade of C to be eligible to receive the certificate.
Health Science Medical Assisting Pathway, Associate of Applied Science

Program Information
The Associate of Applied Science (AAS) in a Health Science Concentration is a career path for persons who have completed one of the following certificate programs: medical assisting, pharmacy technician, or vocational nursing.

The 60 semester credit hour degree is designed for health science professionals in these areas to meet continuing education goals, transfer into four-year university health care administration or allied health programs, and to attain possible promotion from entry-level to advanced-level clinical positions.

Career Outlook Vocational Nursing
The US Department of Labor is reporting a sharp increase for these jobs, with specific increases in large cities and metropolitan areas.

Graduates can work in:
- Hospitals,
- Out-patient facilities, and
- Nursing homes.

Median salary for Gulf Coast region $48,783 per year, Licensed Practical and Licensed Vocational Nurses ¹

¹ Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

Career Outlook Medical Assisting
A medical assisting certificate of technology prepares students for careers in the offices of:
- Physicians,
- Podiatrists,
- Chiropractors,
- Ophthalmologists, and
- Other health practitioners.

Median salary for Gulf Coast region $31,374 per year, Medical Assistant ¹

¹ Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

Career Outlook Pharmacy Technician
Employment of pharmacy technicians is expected to increase by over 21 percent from 2016 - 2026, which is much faster than the average for all occupations. This demand will be due to the expansion of retail pharmacies, the increased number of middle-aged and elderly people, and the increasing roles and responsibilities of pharmacy technicians.

Graduates of our program are able to work as pharmacy technicians in:
- Hospitals,
- Nursing homes,
- Retail,
- Home health care, and
- Public and government health agencies.

Median salary for Gulf Coast region $34,422 per year, Pharmacy Technician ¹

¹ Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1817; North campus, 281-459-7618; and South campus, 281-922-3466.

Campuses
Central campus
North campus
South campus

Information
The Associate of Applied Science (AAS) in a 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 healthcare administration or healthcare service programs, and to attain possible promotion from entry-level to more advanced level office positions.

Plan of Study
All Campuses
3HSC-MDAST

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<th>Course</th>
<th>Title</th>
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<td>POFT 1301</td>
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<td>MDCA 1309</td>
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<td>MDCA 1421</td>
<td>Administrative Procedures</td>
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<td>MDCA 1205</td>
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<td>MDCA 1302</td>
<td>Human Disease/Pathophysiology</td>
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<tr>
<td>MDCA 1448</td>
<td>Pharmacology and Administration of Medications</td>
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</table>

San Jacinto College 2019-2020
Health Science Pharmacy Technician Pathway, Associate of Applied Science

Program Information
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Campuses
Central campus
North campus
Information

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Plan of Study

North and South Campuses

3HSC-PHAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<td>Pharmaceutical Mathematics II</td>
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<td>PHRA 1345</td>
<td>Compounding Sterile Preparations and Aseptic Technique</td>
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<td>Institutional Pharmacy Practice</td>
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<td>Clinical-Pharmacy Technician I</td>
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<td>MATH 1314</td>
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<td>HIST 1301</td>
<td>United States History I</td>
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<td>Composition I</td>
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<td>SPCH 1315</td>
<td>Public Speaking</td>
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<td>SPCH 1318</td>
<td>Interpersonal Communication</td>
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<td>SPCH 1321</td>
<td>Business and Professional Speech</td>
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<tr>
<td>&amp; BIOL 1106</td>
<td>and Biology for Science Majors I (lab)</td>
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</table>

To be eligible for this degree, the student must have completed the Pharmacy Technician certificate program.

Health Science Vocational Nursing Pathway, Associate of Applied Science

Program Information

The Associate of Applied Science (AAS) in a Health Science Concentration is a career path for persons who have completed one of the following certificate programs: medical assisting, pharmacy technician, or vocational nursing.

The 60 semester credit hour degree is designed for health science professionals in these areas to meet continuing education goals, transfer into four-year university health care administration or allied health programs, and to attain possible promotion from entry-level to advanced-level clinical positions.

Career Outlook Vocational Nursing

The US Department of Labor is reporting a sharp increase for these jobs, with specific increases in large cities and metropolitan areas.

Graduates can work in:

- Hospitals,
- Out-patient facilities, and
- Nursing homes.

Median salary for Gulf Coast region $48,783 per year, Licensed Practical and Licensed Vocational Nurses

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

Career Outlook Medical Assisting

A medical assisting certificate of technology prepares students for careers in the offices of:

- Physicians,
- Podiatrists,
- Chiropractors,
- Ophthalmologists, and
- Other health practitioners.

Median salary for Gulf Coast region $31,374 per year, Medical Assistant

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017
Career Outlook Pharmacy Technician

Employment of pharmacy technicians is expected to increase by over 21 percent from 2016 - 2026, which is much faster than the average for all occupations. This demand will be due to the expansion of retail pharmacies, the increased number of middle-aged and elderly people, and the increasing roles and responsibilities of pharmacy technicians.

Graduates of our program are able to work as pharmacy technicians in:

- Hospitals,
- Nursing homes,
- Retail,
- Home health care, and
- Public and government health agencies.

Median salary for Gulf Coast region $34,422 per year, Pharmacy Technician

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1817; North campus, 281-459-7618; and South campus, 281-922-3466.

Campuses

Central campus
North campus
South campus

Information

The Associate of Applied Science (AAS) in a 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 healthcare administration or healthcare service programs, and to attain possible promotion from entry-level to more advanced level office positions.

Plan of Study

All Campuses

3HSC-LVN

Course Title Credits

<table>
<thead>
<tr>
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<th>Credits</th>
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<tr>
<td>BIOL 2301 &amp; BIOL 2101</td>
<td>Human Anatomy and Physiology I (lecture) and Human Anatomy and Physiology I (lab)</td>
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First Term

Select one of the following:

- BIOL 2302 & BIOL 2102: Human Anatomy and Physiology II (lecture) and Human Anatomy and Physiology II (lab)
- VNSG 1327: Essentials of Medication Administration
- VNSG 1423: Advanced Nursing Skills
- VNSG 1260: Clinical I

Credits 17

Second Term

- VNSG 1509: Nursing in Health and Illness II
- VNSG 1331: Pharmacology
- VNSG 1261: Clinical II - Licensed Practical/Vocational Nurse Training
- VNSG 1226: Gerontology
- VNSG 1162: Clinical III - Practical Nurse

Credits 3

Third Term

- VNSG 1330: Maternal-Neonatal Nursing
- VNSG 1334: Pediatrics
- VNSG 1301: Mental Health and Mental Illness
- VNSG 2161: Clinical V - Licensed Practical/Vocational Nurse Training
- VNSG 1119: Leadership and Professional Development

Credits 13

Fourth Term

- MATH 1314: College Algebra (or higher)
- PSYC 2301: General Psychology
- ENGL 1301: Composition I
- Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)

Select one of the following:

- SPCH 1311: Introduction to Speech Communication
- SPCH 1315: Public Speaking
- SPCH 1318: Interpersonal Communication
- SPCH 1321: Business and Professional Speech

Credits 15

Total Credits 60

To be eligible for this degree, the student must have completed the Vocational Nursing certificate program.

Medical Assisting, Certificate of Technology

Program Information

The medical field is one of the fastest growing industries in the nation. As more doctors open new offices or join established practices, the need for well-trained assistants increases. Medical assistants are trusted with huge responsibilities, both administrative and clinical. A day's work may include: scheduling appointments, preparing patients for examination, recording vital signs, arranging hospital admissions, handling laboratory
specimens, sterilizing instruments, calling in prescriptions, drawing blood, handling insurance, removing sutures, and taking electrocardiograms.

Employment of medical assistants is expected to grow much faster than the average for all occupations as the health services industry expands. Employment growth will be driven by the increase in the number of group practices, clinics and other health care facilities that need a high proportion of support personnel, particularly the flexible medical assistant who can handle both administrative and clinical duties.

Upon completion of the medical assisting program, the student is granted a certificate of technology and is eligible to sit for two exams. These include the American Association of Medical Assistants (AAMA) examination to earn the Certified Medical Assistant (CMA) certification and the Registered Medical Assistant (RMA) exam to earn a certificate from the American Medical Technologists (AMT).

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 the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 North
Suite 158
Clearwater, FL 33756
727-210-2350
www.caahep.org

**Career Opportunities**

A medical assisting certificate of technology prepares students for careers in the offices of:

- Physicians,
- Podiatrists,
- Chiropractors,
- Ophthalmologists, and
- Other health practitioners.

**Earning Potential**

Medical Assistant starting median salary: $31,263 per year

1 Source: texaswages.com, Gulf Coast region, 2017.

For more information contact one of the following:

281-459-5410 or email diana.johnson@sjcd.edu
281-998-6150 or email norma.torres@sjcd.edu

**Campus**

North Campus

**Links**

Students may refer to the College website regarding Medical Assisting (https://www.sanjac.edu/career/medical-assisting) for more information.

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**Information**

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 but can include 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 and is eligible to sit for two exams. These include the AAMA Certification Examination to earn the Certified Medical Assistant, CMA (AAMA) and the Registered Medical Assistant Exam to earn the RMA (AMT) Certification.

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
25400 US Highway 19 North, Suite 158
Clearwater, FL 33763
727-210-2350
www.caahep.org

View application packet and student handbook here: https://www.sanjac.edu/career/medical-assisting

**Plan of Study**

**North Campus**

4MED-ASST

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<thead>
<tr>
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<td><strong>First Term</strong></td>
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<td>MDCA 1313</td>
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<td>MDCA 1421</td>
<td>Administrative Procedures</td>
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<td>MDCA 1205</td>
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<td>MDCA 1302</td>
<td>Human Disease/Pathophysiology</td>
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<td>MDCA 1448</td>
<td>Pharmacology and Administration of Medications</td>
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<td>MDCA 1310</td>
<td>Medical Assistant Interpersonal and Communication Skills</td>
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<td>MDCA 1417</td>
<td>Procedures in a Clinical Setting</td>
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San Jacinto College 2019-2020
Program Information

Upon completion of the computed tomography program an advanced technical certificate will be awarded. Computed tomography technologists are imaging professionals qualified to operate specialized radiographic equipment and utilize computer processing to create cross-sectional images of the human body. These images are utilized for the assessment of anatomy and diagnosis of various medical conditions. The San Jacinto College’s Computed Tomography Program will provide the imaging professional with the required structured education and clinical experience to be eligible to take the American Registry of Radiologic Technologists (ARRT) advanced certification in Computed Tomography (CT). Individuals credentialed by an approved certification organization in the field of Radiology, Nuclear Medicine or Radiation Therapy are eligible to apply to the program.

The Computed Tomography Program at San Jacinto College:

- Prepares the ARRT registered students to work in an advanced modality position in hospitals and other healthcare facilities through a variety of clinical rotations;
- Educates students to produce diagnostic images used for assessment and diagnosis of various medical conditions;
- Encourages students through a variety of methods to be clinically competent, possess critical thinking skills, communicate effectively, both written and orally, and exhibit ethical and professional behavior; and
- Prepares the student to take the ARRT computed tomography certification examination and enter the workforce with the skills to work independently as Computed Tomography technologist.

Career Opportunities

Employment outlook is excellent and many of our students gain employment in the field prior to completion of this certificate program.

Graduates of this program are employed in hospitals, clinics, and imaging centers.

Earning Potential

Radiologic Technologist median salary: $61,892 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information contact 281-476-1871 or CT Clinical Coordinator Albert Garcia at albert.garcia@sjcd.edu

Campus

Central Campus

Links

Application Deadlines are as followed:

Oct. 1st for Spring
April 1st for Summer
July 1st for Fall

Application procedure:

- Apply for admission to San Jacinto College through credit or continuing professional development (CPD);
- Submit an Advanced Modality application to the Medical Imaging Department or CT program coordinator along with transcripts and other required documents; and
- Attend a required advanced modality information session and/or meet with the CT program coordinator to discuss other program requirements.

Must be a registered technologist with the ARRT and licensed by the Texas Medical Board by the first class/clinical date to participate in the program. Please review the links below for program information for all Advance Modality programs and Advance Modality programs application.

Advance Modality Program information (https://www.sanjac.edu/sites/default/files/media-file/Advanced%20Modality%20Program%20Information%202011218.pdf)

Application (https://publications.sanjac.edu/areas-study/health-sciences/medical-imaging-magnetic-resonance-advanced-technical-certificate/APPLICATION_FORM.pdf)

Information

Medical imaging technology consists of three Associate of Applied Science (AAS) degrees and four certificate programs.
The degree programs include:

- medical radiography,
- diagnostic medical sonography, and
- invasive cardiovascular technology.

The advanced or enhanced certificate programs are:

- computed tomography,
- invasive cardiovascular technology,
- magnetic resonance imaging, and
- mammography.

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. Additionally, completion of the Hepatitis B series along, updated Tetanus, an annual TB screening, and annual flu vaccine is required.

In addition to meeting all other requirements, a criminal background check and drug screening are required for all health science students attending imaging courses, and are required prior to admission to the program. Students entering a medical imaging program will also be required to show proof of health insurance and current CPR (American Heart Associate–Health Care Provider) certification. Please contact the medical imaging department for details about the criminal background check and drug screening requirements.

### Advanced Technical Certificate

Computed tomography (CT) utilizes specialized radiographic equipment to produce detailed imaging scans of the body. The purpose of the CT program is to educate and train the registered radiologic technologists in all areas of CT with the intent to graduate competent candidates for the ARRT post-primary certification. The CT program includes an advanced type of health professions work-based instruction that assists students to synthesize new knowledge, apply previous knowledge, and gain experience performing examinations. While enrolled in the CT program, practical experience is simultaneously related to theory.

### Minimum Program Admission Criteria

Applicants must have graduated from a JRCET-accredited radiography, nuclear medicine, or radiation therapy program and hold a certification from the American Registry of Radiologic Technologists (ARRT). Applicants must also hold a Texas Medical Board Medical Radiologic Technologist License. The student must complete and submit an application to the Medical Imaging department. Upon acceptance to the program, the student must also submit required health records, proof of health insurance, CPR certification (American Heart Associate–Health Care Provider), criminal background check, and drug screen as stated for all Medical Imaging students. Acceptance into the Computed Tomography program is determined after review of the application and completion of requirements. Application to the program does not guarantee acceptance due to limited clinical availability. The Computed Tomography program is structured for students to complete the certificate in either one or two semesters. Prospective participants should call the Medical Imaging department at 281-476-1871 for additional information.

### Plan of Study

**Central Campus**

**AMRAD-CT**

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<td>CTMT 2336</td>
<td>Computed Tomography Equipment and Methodology</td>
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<td>CTMT 2360</td>
<td>Clinical 1 - Computed Tomography Technology/Technician</td>
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**Capstone Experience:** CTMT 2461 Clinical 2 - Computed Tomography Technology/Technician

### Medical Imaging, Diagnostic Medical Sonography, Associate of Applied Science

A Diagnostic Medical Sonographer is a person qualified to provide patient imaging using ultrasound technology and equipment under the supervision of a medical doctor to examine many parts of the body, such as the abdomen, breasts, female and male reproductive systems, and more.

The diagnostic medical sonography program at San Jacinto College:

- Prepares students to work in entry-level positions in hospitals and other health care facilities through hands-on laboratory practice and a variety of clinical rotations;
- Trains students to use high frequency sound waves to produce images used for assessment and diagnosis of various medical conditions. The program concentrates on imaging the organs of the abdomen, pelvis, superficial structures as well as obstetrics; and
- Grants students eligibility to apply to take exams for the American Registry of Diagnostic Medical Sonography (ARDMS).
Additional Information

- Full-time days only (clinical day: 8 AM-5:30 PM; lecture day: 8 AM-4 PM);
- ARDMS SPI pass rate of 92 percent in 2017;
- ARDMS Abdomen pass rate of 100 percent in 2017;
- ARDMS OB/GYN pass rate of 100 percent in 2017;
- Clinical site rotations through 15 facilities (including Pearland, Texas Medical Center, and Galveston);
- Typical school calendar is followed (16-week spring and fall terms; 13-week summer term); and
- Tuition, fees, and books are approximately $2,960/year for in-district students. The first semester is approximately $500 extra for immunizations, uniforms, CPR certification, and online clinical reporting system.

Career Opportunities

Employment of sonographers is expected to grow by 44 percent by 2020, much faster than the average for all occupations. Sonographic technology is expected to evolve rapidly and to spawn many new sonography procedures, such as 3D- and 4D-sonography for use in obstetric and ophthalmologic diagnosis.

Earning Potential

Diagnostic Medical Sonographer average median salary: $74,044 per year.

Source: texasswages.com (http://texasswages.com), Gulf Coast region, 2017

Campus

Central Campus

Information

Medical imaging technology consists of three Associate of Applied Science (AAS) degrees and four certificate programs.

The degree programs include:

- medical radiography,
- diagnostic medical sonography, and
- invasive cardiovascular technology.

The advanced or enhanced certificate programs are:

- computed tomography,
- invasive cardiovascular technology,
- magnetic resonance imaging, and
- mammography.

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. Additionally, completion of the Hepatitis B series along, updated Tetanus, an annual TB screening, and annual flu vaccine is required.

In addition to meeting all other requirements, a criminal background check and drug screening are required for all health science students attending imaging courses, and are required prior to admission to the program. Students entering a medical imaging program will also be required to show proof of health insurance and current CPR (American Heart Associate–Health Care Provider) certification. Please contact the medical imaging department for details about the criminal background check and drug screening requirements.

Associate of Applied Science Degree

A Diagnostic 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 Sonography (ARDMS).

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

Students are admitted annually into the Diagnostic Medical Sonography Program. Due to limited clinical internship availability, students are admitted on a competitive basis. In addition to the general admission requirements of San Jacinto College, all prerequisite courses must be completed prior to acceptance into the Diagnostic Medical Sonography Program. Preference will be given to applicants who meet one of the following when applying to the program:

- Graduate of a two (2) year patient-related allied healthcare program (radiography, respiratory, paramedic, nursing, occupational therapy, or surgical technology);
- Bachelor's degree (any major);
- Licensed Vocational Nurse (LVN) graduate;
- Certified Nurse Aide (CNA) +2 years work experience; or
- 3+ years direct patient care work experience.

Computer proficiency is recommended for the Sonography Program. Students who do not have computer proficiency are encouraged to take BCIS 1305 Business Computer Applications or ITSC 1309 Integrated Software Applications I.

The applicant must submit a current resume, 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 (https://www.sanjac.edu/program/diagnostic-medical-sonography) or by calling 281-476-1871 for dates. Acceptance into the
Sonography Program is determined after review of the application and completion of all requirements.

Upon acceptance in the program, 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.

Prospective applicants should call the Medical Imaging department at 281-476-1871 for additional information.

## Plan of Study

### Central Campus

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<td>BIOL 2404</td>
<td>Introduction to Anatomy and Physiology (lecture &amp; lab) or Human Anatomy and Physiology I (lecture) and Human Anatomy and Physiology I (lab)</td>
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<td>MATH 1314</td>
<td>College Algebra</td>
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<td>RADR 2209</td>
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<td>SPCH 1315</td>
<td>Public Speaking or Interpersonal Communication</td>
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**Credits:** 21

### First Term

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<td>HPRS 1204</td>
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### Second Term

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<td>Basic Ultrasound Physics</td>
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<tr>
<td>DMSO 1266</td>
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<tr>
<td>DMSO 2405</td>
<td>Sonography of Obstetrics/Gynecology</td>
<td>4</td>
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<tr>
<td>DMSO 2253</td>
<td>Sonography of Superficial Structures</td>
<td>2</td>
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<td>DMSO 1355</td>
<td>Sonographic Pathophysiology</td>
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<tr>
<td>DMSO 1342</td>
<td>Intermediate Ultrasound Physics</td>
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### Fourth Term

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<td>DMSO 2245</td>
<td>Advanced Sonography Practices</td>
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<td>DMSO 2342</td>
<td>Sonography of High Risk Obstetrics</td>
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**Credits:** 10

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**Credits:** 5

**Total Credits:** 63

### Capstone Experience: DMSO 1367 Practicum IV - Diagnostic Medical Sonography

## Medical Imaging, Invasive Cardiovascular Technology, Advanced Technical Certificate

### Information

Medical imaging technology consists of three Associate of Applied Science (AAS) degrees and four certificate programs.

The degree programs include:

- medical radiography,
- diagnostic medical sonography, and
- invasive cardiovascular technology.

The advanced or enhanced certificate programs are:

- computed tomography,
- invasive cardiovascular technology,
- magnetic resonance imaging, and
- mammography.

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. Additionally, completion of the Hepatitis B series...
along, updated Tetanus, an annual TB screening, and annual flu vaccine is required.

In addition to meeting all other requirements, a criminal background check and drug screening are required for all health science students attending imaging courses, and are required prior to admission to the program. Students entering a medical imaging program will also be required to show proof of health insurance and current CPR (American Heart Associate–Health Care Provider) certification. Please contact the medical imaging department for details about the criminal background check and drug screening requirements.

### Advanced Technical Certificate

The Advanced Technical Certificate in Invasive Cardiovascular Technology encompasses a three-semester course of study requiring a total of 33 semester credit hours. Admission is limited to American Registry of Radiologic Technologist Credentialed applicants. Graduates of the Medical Radiography Associate of Applied Science degree may apply to the program when registry eligible. Completion of the prescribed curriculum will help prepare the student for the Cardiac-Interventional (CI) Radiography Certification Examination administered by the American Registry of Radiologic Technologists.

### Admission Criteria

A limited number of students are admitted into the program annually. Class size is determined by the availability of clinical space. All applicants must have completed the prerequisite courses prior to admission to the program. The applicant must submit official transcripts, and two letters of recommendation (one from an instructor or clinical personnel). The applicant must complete and submit an application to the Medical Imaging department for the Invasive Cardiovascular Technology Program. Applicants must attend a mandatory information meeting (dates available on website). The applicant must also submit required health records, CPR (American Heart Associate–Health Care Provider), criminal background check, and drug screen as stated for all Medical Imaging students.

Acceptance into the Invasive Cardiovascular Technology Program is determined after review of the application and completion of all requirements.

Prospective applicants should call the Medical Imaging department at 281-476-1871 for additional information.

### Plan of Study

**Central Campus**

**AMED-INCRV**

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**Capstone Experience:** CVTT 2350 Cardiovascular Professional Transition

### Medical Imaging, Invasive Cardiovascular Technology, Associate of Applied Science

Information

Medical imaging technology consists of three Associate of Applied Science (AAS) degrees and four certificate programs.

The degree programs include:

- medical radiography,
- diagnostic medical sonography, and
- invasive cardiovascular technology.

The advanced or enhanced certificate programs are:

- computed tomography,
- invasive cardiovascular technology,
- magnetic resonance imaging, and
- mammography.

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. Additionally, completion of the Hepatitis B series...
along, updated Tetanus, an annual TB screening, and annual flu vaccine is required.

In addition to meeting all other requirements, a criminal background check and drug screening are required for all health science students attending imaging courses, and are required prior to admission to the program. Students entering a medical imaging program will also be required to show proof of health insurance and current CPR (American Heart Associate–Health Care Provider) certification. Please contact the medical imaging department for details about the criminal background check and drug screening requirements.

Invasive Cardiovascular Technology
An invasive cardiovascular technologist is a health care professional who, through the use of specific high-technology equipment and at the direction of a qualified physician, performs procedures on patients leading to the diagnosis and treatment of congenital and acquired heart disease, and peripheral vascular disease. The Invasive Cardiovascular Program Technology (ICVT) prepares students to work in cardiac catheterization laboratories and other cardiac facilities. During clinical assignments, students will assist in performing diagnostic and interventional cardiac catheterization, angiography procedures, and measuring cardiovascular parameters. The ICVT program leads to an associate of applied science (AAS) degree and encompasses a four-semester course of study requiring a total of 60 semester credit hours. Graduates of the program are eligible to sit for the examination to earn a Registered Cardiovascular Invasive Specialist (RCIS) credential offered by Cardiovascular Credentialing International (CCI), after satisfying the examination qualification prerequisite for RCIS235-2013. Website for this exam is: http://www.cci-online.org/content/registered-cardiovascular-invasive-specialist-rcis.

Invasive Cardiovascular Technology Student Goals
1. Students will be proficient in oral and written communication skills.
2. Students will provide basic patient care and comfort.
3. Students will be clinically competent by performing diagnostic invasive cardiovascular procedures.
4. Students will demonstrate professional/ethical behavior by adhering to professional standards and scope of practice.
5. Students will possess critical thinking skills by demonstrating the ability to recognize, identify and document abnormal anatomic structures.

Admission Criteria
A limited number of students are admitted into the program annually. Class size is determined by the availability of clinical space. 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 for the invasive cardiovascular technology program. Applicants must attend a mandatory information meeting (dates available on website). The applicant must also submit required health records, CPR certification (American Heart Associate–Health Care Provider), criminal background check and drug screen as stated for all medical imaging students – see medical imaging technology and Central Campus section for an explanation of requirements. Acceptance into the invasive cardiovascular technology program is determined after review of the application and completion of all requirements.

Prospective applicants should call the Medical Imaging Department at 281-476-1871 for additional information.

Plan of Study
Central Campus
3MED-INCRV

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**Medical Imaging, Magnetic Resonance Imaging, Advanced Technical Certificate**

**Program Information**

Are you fascinated by technology and the inner workings of the human body? If so, a career in computed tomography, mammography or magnetic resonance imaging may be the right path for you. These imaging professionals are qualified to provide patient imaging using technology and equipment for CT, mammography and MRI under the supervision of a medical doctor to examine various anatomic structures in the body.

The advanced imaging modalities program at San Jacinto College:

- Prepares the ARRT registered students to work in advanced modality positions in hospitals and other health care facilities through a variety of clinical rotations;
- Educates students to produce images used for assessment and diagnosis of various medical conditions; and
- Encourages students through a variety of methods to be clinically competent, possess critical thinking skills, communicate effectively, both written and orally, and exhibit ethical and professional behavior.

**Career Opportunities**

Employment outlook is excellent and many of our students gain employment in the field prior to completion of this certificate program.

Graduates of this program are employed in hospitals, clinics and imaging centers.

**Earning Potential**

Radiologic Technologist median salary: $61,892 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information contact 281-476-1871 or melissa.ledesmazermeno@sjcd.edu (cassandra.gossett@sjcd.edu).

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**Links**

Application Deadlines are as followed:

- Oct. 1st for Spring
- April 1st for Summer
- July 1st for Fall

Application procedures:

- Apply for admission to San Jacinto College
- Submit an application for the Advance Modality programs to the program coordinator.
- Submit copies of transcripts from the Radiography program completed.

Must be a registered technologist with the ARRT and licensed by the Texas Medical Boards by the first class date to participate in the program. Please review the links below for program information for all Advance Modality programs and Advance Modality programs-application.

Advance Modality Program information (https://www.sanjac.edu/sites/default/files/media-file/Advanced%20Modality%20Program%20Information%202011218.pdf)

Application (https://publications.sanjac.edu/areas-study/health-sciences/medical-imaging-magnetic-resonance-advanced-technical-certificate/APPLICATION_FORM.pdf)

**Information**

Medical imaging technology consists of three Associate of Applied Science (AAS) degrees and four certificate programs.

The degree programs include:

- medical radiography,
- diagnostic medical sonography, and
- invasive cardiovascular technology.

The advanced or enhanced certificate programs are:

- computed tomography,
- invasive cardiovascular technology,
- magnetic resonance imaging, and
- mammography.

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. Additionally, completion of the Hepatitis B series along, updated Tetanus, an annual TB screening, and annual flu vaccine is required.

In addition to meeting all other requirements, a criminal background check and drug screening are required for all health science students.
attending imaging courses, and are required prior to admission to the program. Students entering a medical imaging program will also be required to show proof of health insurance and current CPR (American Heart Associate—Health Care Provider) certification. Please contact the medical imaging department for details about the criminal background check and drug screening requirements.

Advanced Technical Certificate

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 American Registry of Radiologic Technologies (ARRT) registered in one of the following: radiography, nuclear medicine, or radiation therapy or registry eligible and hold a Texas Medical Board Medical Radiologic Technologist License. The applicant must complete and submit an application to the Program Coordinator or Medical Imaging department. Upon provisional acceptance, the applicant must also submit required health records, proof of health insurance, CPR certification (American Heart Association—Health Care Provider), criminal background check, and drug screen as stated for all medical imaging students. Acceptance into the MRI program is determined after review of the application and completion of requirements. Prospective participants should call the Medical Imaging department at 281-476-1871 for additional information.

Students selected for any of the Medical Imaging programs are required to submit a physical exam after they have received provisional acceptance to the program, instructions will be provided.

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 are 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. A criminal background check and drug screening are required for all health science students attending imaging courses, and are required prior to admission to the imaging programs.

Plan of Study

Central Campus
AMRAD-MRI

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<td>Magnetic Resonance Equipment and Methodology</td>
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MRIT 2360  Clinical I - Radiologic Technology/Science - Radiographer  3
MRIT 2461  Clinical II - Radiologic Technology/Science - Radiographer  4
RADR 2340  Sectional Anatomy for Medical Imaging  3

Total Credits  16

Capstone Experience: MRIT 2461 Clinical II - Radiologic Technology/Science - Radiographer

Medical Imaging, Mammography, Enhanced Skills Certificate

Program Information

Are you fascinated by technology and the inner workings of the human body? If so, a career in computed tomography, mammography or magnetic resonance imaging may be the right path for you. These imaging professionals are qualified to provide patient imaging using technology and equipment for CT, mammography and MRI under the supervision of a medical doctor to examine various anatomic structures in the body.

The advanced imaging modalities program at San Jacinto College:

• Prepares the A.R.R.T. registered students to work in advanced modality positions in hospitals and other health care facilities through a variety of clinical rotations.
• Educates students to produce images used for assessment and diagnosis of various medical conditions.
• Encourages students through a variety of methods to be clinically competent, possess critical thinking skills, communicate effectively, both written and orally, and exhibit ethical and professional behavior.

Career Opportunities

Employment outlook is excellent and many of our students gain employment in the field prior to completion of this certificate program.

Graduates of this program are employed in hospitals, clinics and imaging centers.

Earning Potential

Radiologic Technologist median salary: $61,892 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017
For more information contact 281-476-1871 or melissa.ledesmazermeno@sjcd.edu (cassandra.gossett@sjcd.edu).

**Central Campus Only**

**Links**

Application Deadlines: Oct. 1st for Spring and July 1st for Fall.

Application procedures:
- Apply for admission to San Jacinto College
- Submit an application for the Advance Modality programs to the program coordinator.
- Submit copies of transcripts from the Radiography program completed.
- Must be a registered technologist with the ARRT and licensed by the Texas Medical Boards by the first class date to participate in the program. Please review the link for program information for all Advance Modality programs. For Advance Modality applications, please contact the program coordinator listed on the program information sheet below.
- Submit an application for the Advance Modality programs to the program coordinator.

Advance Modality Programs Information (https://publications.sanjac.edu/sites/default/files/media-file/Advanced%20Modality%20Program%20Information%20011218.pdf)

Application (https://publications.sanjac.edu/areas-study/health-sciences/medical-imaging-mammography-enhanced-skills-certificate/APPLICATION_FORM.pdf)

**Information**

Medical imaging technology consists of three Associate of Applied Science (AAS) degrees and four certificate programs.

The degree programs include:
- medical radiography,
- diagnostic medical sonography, and
- invasive cardiovascular technology.

The advanced or enhanced certificate programs are:
- computed tomography,
- invasive cardiovascular technology,
- magnetic resonance imaging, and
- mammography.

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. Additionally, completion of the Hepatitis B series along, updated Tetanus, an annual TB screening, and annual flu vaccine is required.

In addition to meeting all other requirements, a criminal background check and drug screening are required for all health science students attending imaging courses, and are required prior to admission to the program. Students entering a medical imaging program will also be required to show proof of health insurance and current CPR (American Heart Association - Health Care Provider) certification. Please contact the medical imaging department for details about the criminal background check and drug screening requirements.

**Enhanced Skills Certificate**

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 40 hours of training required by the Mammography Quality Standards Act, the knowledge, skills, and clinical requirements needed to obtain approval to sit and successfully pass the Mammography post primary examination offered by ARRT; in addition, preparation 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, equipment & technical factors, Quality control/Quality assurance, implant imaging, communication skills, specialty equipment and complete 8 hours of Digital Mammography training.

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 in a hybrid format with Tuesday evening classes. Clinical rotations are offered the second eight weeks as day time rotations, averaging 22 hours a week.

**Minimum Program Admission Criteria**

Applicants must be American Registry of Radiologic Technologists (ARRT) registered in radiography and hold a Texas Medical Board Medical Radiologic Technologist License. The applicant must complete and submit an application to the program coordinator or medical imaging department. Provisional acceptance into the Mammography program is determined after review of the application and completion of requirements. After provisional acceptance the applicant must also submit required health records, proof of health insurance, CPR certification (American Heart Association - Health Care Provider), criminal background check and drug screen as stated for all medical imaging students – see paragraph below. Full acceptance into the Mammography program is determined after successful completion of physical, background, drug screen and submission of all required records (immunization, health insurance, CPR, certifications, and license). Prospective participants should call the medical imaging department at 281-476-1871 for additional information.

Students selected for any of the medical imaging programs are required to submit a physical exam upon provisional acceptance to the program and will be directed with instructions on where to complete and submit all the items listed below.

The 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.
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. A criminal background check and drug screening are required for all health science students attending imaging courses, and are required prior to admission to the imaging programs.

**Plan of Study**

**Central Campus**

EMRAD-MAMM

Please see Medical Radiography, Associate of Applied Science (p. 180) page for more information.

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</table>

**Capstone Experience:** MAMT 2363 Clinical - Mammography Technology

**Medical Laboratory Technology, Associate of Applied Science**

**Program Information**

Do you have a passion for medical discovery? If so, San Jacinto College’s Medical Laboratory Technology degree is for you. Those who dedicate themselves to lab work play a vital role in the health of our society, providing doctors with the critical information needed to properly diagnose, monitor, and treat patients.

The San Jacinto College Medical Laboratory Technology program:

- Teaches students that medical laboratory technicians differ from the other allied health professions because they have minimal contact with patients, yet provide the physician vital information needed to diagnose, assess, monitor, and treat patients;
- Offers a 23-month program with a curriculum focused on the four major clinical laboratory areas; and
- Is a combination of theory and student lab taught on campus and clinical education taught in area hospitals.

Upon successful completion of the curriculum, students earn an Associate of Applied Science (AAS) degree and are eligible to take the national certification exams and 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.

**Career Opportunities**

With employment of medical laboratory technicians expected to grow by 15 percent within the next eight years, according to the US Bureau of Labor Statistics, graduates enjoy a multitude of career opportunities.

An associate degree in medical laboratory prepares students for careers in:

- Clinical laboratory science,
- Histology,
- Anatomic pathology,
- Medical office technician, and
- Research assistant roles.

In such environments as:

- Hospital laboratory,
- Doctors’ office labs,
- Private labs,
- Veterinary labs,
- Industrial labs,
- Centers for Disease Control,
- Departments of Health and Human Services,
- Biohazardous waste companies,
- Police departments, and
- Industrial labs.

**Earning Potential**

Medical and Clinical Laboratory Technician Median salary: $52,659 per year

1 Source: texaswages.com (http://texaswages.com), Houston region, 2017

**Accreditation**

The San Jacinto College Medical Laboratory Technology program is accredited by:

National Accrediting Agency for Clinical Laboratory Sciences
5600 N. River Road, Suite 720
Rosemont, Illinois 60018-5119

847.939.3597
773.714.8880
Information
A criminal background check and/or alcohol and drug screening is required of all health science students attending clinical courses or practicums and may be required prior to admission to the program.

For more information concerning the Medical Laboratory Technology program Accreditation, students may call or write:
National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
5600 N. River Rd, Suite 720
Rosemont, IL 60018-5119
Phone: 847-939-3597
773.714.8880
Fax: 773.714.8886
info@naacls.org

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 Introduction to Anatomy and Physiology (lecture & lab) and MATH 1314 College Algebra or higher.

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 cumulative 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 10 semester hours at San Jacinto Community College District, as specified below, with no grade lower than C.

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<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tr>
<td>BIOL 2404</td>
<td>Introduction to Anatomy and Physiology (lecture &amp; lab)</td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra (or higher)</td>
<td>3</td>
</tr>
</tbody>
</table>

Applications 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 San Jacinto College Records Management Department.

Applicants to the medical laboratory technology 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 if they want to be considered for 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, nurse practitioner, or physician’s assistant (M.D., D.O., N.P., P.A.) and attend an orientation with a member of the medical laboratory technician program.

Students are required to purchase uniforms and accessories.

1 Cancer Data Mgmt wording for Biol 2404

Plan of Study
Central Campus
3MED-LABT

<table>
<thead>
<tr>
<th>Course Prerequisites</th>
<th>Course</th>
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<th>Credits</th>
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<td>BIOL 2404 (lecture &amp; lab) (or BIOL 2301 and BIOL 2101 and BIOL 2302 and BIOL 2102)</td>
<td>BIOL 2404</td>
<td>Introduction to Anatomy and Physiology</td>
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<tr>
<td>MATH 1314</td>
<td>MATH 1314</td>
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<td>MLAB 1101</td>
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<td>MLAB 2321</td>
<td>Molecular Diagnostics for Clinical Laboratory Science</td>
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<td>MLAB 2266</td>
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<td>MLAB 2267</td>
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1 Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.

Capstone Experience: MLAB 2238 Advanced Topic in Medical Laboratory Technician

NOTE: Course outline is representative Only of fall semester entry into the program. Adjustments will be made for spring semester entry.

Medical Laboratory Technology, Microscopic Tissue Anatomy, Advanced Technical Certificate

Program Information
This advanced technical certificate is designed for students who have completed the Medical Laboratory Technology Associate of Applied Science (AAS) degree.

While an AAS provides a firm foundation for the entry level medical laboratory technician, the addition of an advanced technical certificate enhances the graduate’s attractiveness to an employer. Pathologists frequently seek enthusiastic histology technicians to join their teams.

Upon successful completion of the program, the student is granted an advanced technical certificate 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 Accrediting Agency for Clinical Laboratory Scientists.

The program curriculum is a balance of technical courses and supervised practicum work at area hospitals. This provides the student an opportunity for educational development, as well as skill competency.

Prior to entering the Microscopic Tissue Anatomy Advanced Technical Certificate program, the student must have completed an Associate of Applied Science in Medical Laboratory Technology and have made
application to take the American Society of Clinical Pathologists examination for medical laboratory technicians.

**Career Opportunities**

The clinical laboratory technology profession invites advanced skilled technicians to join medical organizations to assist in disease and diagnostic procedures that arrest clinical symptoms. The combination of the Medical Laboratory Technology Associate of Applied Science degree and Advanced Technical Certificate in Microscopic Tissue Anatomy separates your skill set from those who have not discovered this important pathway to a productive career in healthcare.

Most Histotechnicians work in hospitals or research libraries.

**Earning Potential**

Medical and Clinical Laboratory Technician (includes histotechnicians)
Median salary: $52,659 per year

1 Source: texaswages.com (http://texaswages.com), Houston region, 2017

**Accreditation**

The San Jacinto College Medical Laboratory Technology program is accredited by:

National Accrediting Agency for Clinical Laboratory Sciences
5600 N. River Road, Suite 720
Rosemont, Illinois 60018-5119

847.939.3597
773.714.8880
773.714.8886 (FAX)

For more information contact 281-478-3612 orbertha.rodriguez@sjcd.edu.

**Campus**

Central Campus

**Admission**

A criminal background check and drug screening are required by all health science students attending clinical courses or practicum and may be required prior to admission.

Prior to entering the anatomic tissue anatomy advanced technical certificate program, the student must have completed an associate of applied science degree in medical laboratory technology and have made application to take the American Society of Clinical Pathologists examination for medical laboratory technicians.

This advanced technical certificate is designed for students who have completed the Medical Laboratory Technology Associate of Applied Science (AAS) degree.

**Plan of Study**

Central Campus
AMLABT-MTA

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<thead>
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<th>Course</th>
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<td>HLAB 1405</td>
<td>Functional Histology I</td>
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<td>HLAB 1443</td>
<td>Histotechnology II</td>
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<td>HLAB 1446</td>
<td>Functional Histology II</td>
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<td><strong>Third Term</strong></td>
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<td>HLAB 2341</td>
<td>Registry Review</td>
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</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</table>

**Capstone Experience:** HLAB 2341 Registry Review

**Medical Radiography, Associate of Applied Science**

**Program Information**

A radiologic technologist is qualified in providing patient services using a variety of imaging equipment. The typical duties of the radiologic technologist include performing radiologic procedures for diagnostic interpretation, providing patient care, applying principles of radiation protection, evaluating radiographic images for technical quality and applying professional judgment.

The San Jacinto College medical radiography program:

- Educates and trains students for entry-level employment in radiography through on-site rotations in area hospitals and clinics;
- Teaches students to be clinically competent, possess critical thinking skills, communicate effectively, both written and orally and ethical and professional behavior; and
- Trains students in appropriate patient care, how to accurately set technical factors for radiographic examinations, demonstrate proper radiation safety, demonstrate the ability to modify imaging
examinations for non-routine patients as well as critique images for diagnostic quality.

Career Opportunities

Employment outlook is excellent, and many of our students gain employment in the field prior to graduation. Our five-year average pass rate on the ARRT national registry exam is 94 percent on the first attempt.

Graduates of this program are employed in hospitals, clinics, and imaging centers.

Additional Information

Students are admitted on a competitive basis because clinical space is limited. Those seeking admission should first apply to San Jacinto College and gain acceptance to the College.

The medical radiography program holds information sessions throughout the year for those interested in the program. For dates and times of these information sessions, you can call the medical imaging department at 281-476-1871 or look for times posted on the San Jacinto College Radiography webpage (https://www.sanjac.edu/program/radiography). Attendance at an information session is required prior to application to the program. Program admission criteria and the selection process are explained at the information session.

Accreditation

The medical radiography program at San Jacinto College is accredited by:

The Joint Review Committee on Education in Radiologic Technology
20 North Wacker Dr., Suite 2850
Chicago IL 60606-3182

Phone: 312-704-5300
Email: mail@jrcert.org
Web: www.jrcert.org (http://www.jrcert.org)

Earning Potential

Radiologic Technologist average median salary: $61,892 per year


For more information contact 281-476-1871.

Campuses

Central Campus

Information

Medical imaging technology consists of three Associate of Applied Science (AAS) degrees and four certificate programs.

The degree programs include:

- medical radiography,
- diagnostic medical sonography, and
- invasive cardiovascular technology.

The advanced or enhanced certificate programs are:

- computed tomography,
- invasive cardiovascular technology,
- magnetic resonance imaging, and
- mammography.

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. Additionally, completion of the Hepatitis B series along, updated Tetanus, an annual TB screening, and annual flu vaccine is required.

In addition to meeting all other requirements, a criminal background check and drug screening are required for all health science students attending imaging courses, and are required prior to admission to the program. Students entering a medical imaging program will also be required to show proof of health insurance and current CPR (American Heart Associate–Health Care Provider) certification. Please contact the medical imaging department for details about the criminal background check and drug screening requirements.

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 medical radiography courses utilize both theory and competency-based educational components designed to prepare the student to become a radiologic technologist specializing in radiography. A radiologic technologist utilizes radiation to produce images of anatomical structures in the body.

Upon successful 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 Medical Board.

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

Phone: 312-704-5300
Email: mail@jrcert.org
Web: www.jrcert.org (http://www.jrcert.org)

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.

Student Goals and Student Learning Outcomes
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 three times a year. 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:

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:
      i. Office of Enrollment Services, and
      ii. Medical Radiography Office

Completion of all of the following prerequisite courses with a minimum of a "C" before admission to the program.

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<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<td>RADR 1201</td>
<td>Introduction to Radiography</td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>MATH 1314</td>
<td>College Algebra</td>
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<td>BIOL 2301</td>
<td>Human Anatomy and Physiology I (lecture)</td>
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</tr>
<tr>
<td>BIOL 2101</td>
<td>Human Anatomy and Physiology I (lab)</td>
<td>1</td>
</tr>
</tbody>
</table>

Any of the following support courses requires a minimum of a C also and if not achieved the course must be retaken until successful.

- PSYC 2301 General Psychology
- Humanities and Fine Arts

In order for credit earned in a required biology course to be applied to the radiography program, credit must have been earned within five (5) years of the first term in which the student enrolls in the program and with an earned grade of a C or above. In order for credit earned in a required RADR 1201 Introduction to Radiography course to be applied to the radiography program, credit must have been earned within three (3) years of the first term in which the student enrolls in the program and with an earned grade of a C or above.

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.

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.

 Attend a mandatory information meeting as posted on the San Jacinto College Radiography webpage ([https://www.sanjac.edu/program/radiography](https://www.sanjac.edu/program/radiography)) or by calling 281-476-1871 for dates.

Receive and complete a Medical Imaging application by deadline of June 1, October 15, or March 8.

Selection Criteria
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 three (3) times a year.

Application periods are:

April 1 through June 1, for fall admission;
September 1 through October 15, for spring admission; and
January 15 through March 8 for summer 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.

Plan of Study

Central Campus
3MED-RAD

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<tr>
<th>Course</th>
<th>Title</th>
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Capstone Experience: Eligible for American Registry of Radiologic Technologists National Certification Exam.

Mental Health Clinical and Counseling Psychology, Associate of Applied Science

The Mental Health Services program is designed to train mental health technicians, prevention specialists, and prepare individuals to meet the requirements for testing as a Licensed Chemical Dependency Counselor (LCDC). Each program offers a practicum class which allows students to apply classroom skills in a treatment setting.

The Mental Health Clinical and Counseling Psychology, Associate of Applied Science (AAS), is a combination of the Mental Health Tech, Substance Abuse Counseling, and Prevention Specialist certifications. The AAS ensures that you are trained on the spectrum of mental health and substance misuse from prevention to recovery!

Substance Abuse Counseling

Are you a compassionate, willing listener who is ready with support or a kind word during a difficult time? If so, San Jacinto College can give you the training you need to provide counseling and other specialized services to individuals and families suffering the devastating effects of substance abuse.

The San Jacinto College substance abuse counseling training program:

- Prepares students to enter the field of human services and provide specialized services to individuals and their families experiencing the effects of substance abuse;
- Teaches graduates to identify and administer appropriate assessments, diagnosis and treatment of individuals who are, or have been, engaged in substance abuse;
- Requires an internship class where students are placed into a substance abuse facility to apply knowledge learned in the program; and
• Provides students with the necessary educational and employment requirements to become eligible for testing as a Licensed Chemical Dependency Counselor (LCDC).

Chemical dependency is a problem that takes an enormous emotional and financial toll on society. This is an unfortunate issue, but the silver lining is that there are exceptional individuals, like you, who are determined to reverse it. San Jacinto College can give you the training you need to become a vital part of the solution. We will prepare you to provide counseling and other specialized services to individuals and families suffering from the devastating effects of substance abuse.

Potential work opportunities include:

• Hospitals,
• Rehab centers,
• Outpatient clinics,
• Veteran's affairs clinics,
• Alternative schools,
• Research facilities, and
• Pain management clinics and counseling centers.

Mental Health Technician

Are you a caring person, a good listener, and compassionate to others’ needs? Psychiatric aides and technicians observe and record patient behavior and present their findings to counselors, nurses, and other professional staff. They intervene in crisis situations, actively moderate client behavior, and assist with feeding, moving, and dressing patients as well as personal hygiene and activities of daily living. If this sounds like you, San Jacinto College’s mental health counseling career path is for you.

The San Jacinto College mental health services program:

• Is specifically designed to train mental health technicians, both psychiatric aides and technicians;
• Prepares students to care for mentally impaired or emotionally disturbed individuals following physician instructions and hospital procedures;
• Provides psychiatric aides and technicians with the skills to observe and record patient behavior and present their findings to counselors, nurses and other professional staff; and
• Offers training to intervene in crisis situations, actively moderate client behavior, and assist with feeding, moving, and dressing patients as well as personal hygiene and activities of daily living.

Career Opportunities

Graduates of our program will be able to work in substance abuse and mental health facilities in both private and nonprofit organizations and find opportunities in:

• Hospitals,
• In-patient psychiatric hospitals,
• Out-patient hospitals,
• Veteran affairs clinics,
• Nursing homes,
• Research facilities, and
• Pain management clinics,

• Drug rehab centers, and
• Counseling centers.

You can make a difference in your life by making a difference in the lives of others!

Earning Potential

Substance abuse, behavioral disorder, and mental health counselor’s salary: $48,623

Psychiatric Technician median salary: $33,232 per year

Source: texaswages.com, Gulf Coast region, 2017

For more information contact 281-998-6150, x7146 or mentalhealthservices@sjcd.edu

Information

The Mental Health Services program is designed to train mental health technicians and prevention specialists in preparation to meet the requirements for testing as a Licensed Chemical Dependency Counselor (LCDC). Each program offers a practicum class that allows students to apply classroom skills in a treatment setting.

Prevention Specialist

We are now offering a Substance Abuse Prevention Specialist Occupational Certificate. This 20-hour certificate prepares students to apply to be a Texas Certified Prevention Specialist (CPS). The curriculum is approved by the Texas Department of Health Services.

The coursework, combined with the capstone experience at a prevention approved training center enables students to work in the area of drug prevention in a variety of settings that include:

• K-12 schools,
• Juvenile justice settings (alternative schools or youth offender programs),
• Local community coalitions, and
• At-risk programs.

Once coursework is completed, students will need 2,000 hours (1 year) of prevention work experience and pass a state exam to obtain their license as a Certified Prevention Specialist (CPS).

Mental Health Technician

The Mental Health Technician (Psychiatric Aide/Technician) Occupational Certificate prepares students to work with individuals with psychiatric or substance use disorders 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, and dressing patients as well as personal hygiene and activities of daily living.

Potential work opportunities include:

• Aides within inpatient/outpatient psychiatric facilities,
• Day treatment centers,
• Counseling centers, and
• Rehabilitation facilities.
Substance Abuse Counseling

The Substance Abuse Counseling Occupational Certificate and Certificate of Technology prepare 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 (LCDC).

Potential Work opportunities include:

- Hospitals,
- Rehabilitation centers,
- Outpatient clinics,
- Veteran’s affairs clinics,
- Alternative schools,
- Research facilities, and
- Pain management clinics and counseling centers.

Associate of Applied Science (AAS)

The combination of the certificates and general education leads to an Associate of Applied Science (AAS) 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. 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 his or her LCDC.

View application and information packet here: https://www.sanjac.edu/career/mental-health-services

Plan of Study

North Campus

3MH-PSYC

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<td>ENGL 1301</td>
<td>Composition I</td>
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<td>PSYT 1371</td>
<td>Mental Health Legal and Ethical Issues</td>
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<td>CMSW 1341</td>
<td>Behavior Modification with Cognitive Disorder</td>
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<td>Basic Nursing Skills for Psychiatric Technicians</td>
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Summer Year One Term

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<td>Pharmacology of Addiction</td>
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<td>Counseling Theories</td>
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Fourth Term

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<td>DAAC 2307</td>
<td>Addicted Family Intervention</td>
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<td>DAAC 2341</td>
<td>Counseling Alcohol and Other Drug Addictions</td>
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<td>ENGL 1302 or ENGL 2311</td>
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| **Credits** | | **12** |

Summer Year Two Term

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<td>Practicum - Substance Abuse/Addiction Counseling</td>
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| **Credits** | | **3** |

**Total Credits** | **60**

Capstone Experience: PMHS 2366 Practicum-Mental Health Services Technician and DAAC 2366 Practicum - Substance Abuse/Addiction Counseling

**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.

Mental Health Technician, Occupational Certificate

Program Information

Are you a caring person, a good listener, and compassionate to others’ needs? Psychiatric aides and technicians observe and record patient behavior and present their 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. If this sounds like you, San Jacinto College's mental health counseling career path is for you.

The San Jacinto College mental health services program:

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• Provides psychiatric aides and technicians with the skills to observe and record patient behavior and present their findings to counselors, nurses and other professional staff.
• Offers training to intervene in crisis situations, actively moderate client behavior and assist with feeding, moving, dressing patients, personal hygiene and activities of daily living.

Career Opportunities

Graduates of our program will be able to work in substance abuse and mental health facilities in both private and nonprofit organizations and find opportunities in:

• Hospitals
• In-patient psychiatric hospitals
• Out-patient hospitals
• Veteran affairs clinics
• Nursing homes
• Research facilities
• Pain management clinics
• Drug rehabilitation centers
• Counseling centers

Earning Potential

Psychiatric Technician median salary: $33,232 per year

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information contact 281-998-6150 ext. 7146 or mentalhealthservices@sjcd.edu

Information

The Mental Health Services program is designed to train mental health technicians and prevention specialists in preparation to meet the requirements for testing as a Licensed Chemical Dependency Counselor (LCDC). Each program offers a practicum class that allows students to apply classroom skills in a treatment setting.

Prevention Specialist

We are now offering a Substance Abuse Prevention Specialist Occupational Certificate. This 20-hour certificate prepares students to apply to be a Texas Certified Prevention Specialist (CPS). The curriculum is approved by the Texas Department of Health Services.

The coursework, combined with the capstone experience at a prevention approved training center enables students to work in the area of drug prevention in a variety of settings that include:

• K-12 schools,
• Juvenile justice settings (alternative schools or youth offender programs),
• Local community coalitions, and
• At-risk programs.

Once coursework is completed, students will need 2,000 hours (1 year) of prevention work experience and pass a state exam to obtain their license as a Certified Prevention Specialist (CPS).

Mental Health Technician

The Mental Health Technician (Psychiatric Aide/Technician) Occupational Certificate prepares students to work with individuals with psychiatric or substance use disorders 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, and dressing patients as well as personal hygiene and activities of daily living.

Potential work opportunities include:

• Aides within inpatient/outpatient psychiatric facilities,
• Day treatment centers,
• Counseling centers, and
• Rehabilitation facilities.

Substance Abuse Counseling

The Substance Abuse Counseling Occupational Certificate and Certificate of Technology prepare 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 (LCDC).

Potential Work opportunities include:

• Hospitals,
• Rehabilitation centers,
• Outpatient clinics,
• Veteran's affairs clinics,
• Alternative schools,
• Research facilities, and
• Pain management clinics and counseling centers.

Associate of Applied Science (AAS)

The combination of the certificates and general education leads to an Associate of Applied Science (AAS) 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. 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 his or her LCDC.
View application and information packet here: https://www.sanjac.edu/career/mental-health-services

**Plan of Study**

North Campus  
6MH-TECH

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**Capstone Experience:** PMHS 2366 Practicum-Mental Health Services Technician

**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.

**Mental Health, Substance Abuse Counseling, Level 2 Certificate**

- Prepares students to enter the field of human services and provide specialized services to individuals and their families experiencing the effects of substance abuse.
- Teaches graduates to identify and administer appropriate assessments, diagnosis and treatment of individuals who are, or have been, engaged in substance abuse.
- Requires an internship class where students are placed into a substance abuse facility to apply knowledge learned in the program.
- Provides students with the necessary educational and employment requirements to become eligible for testing as a Licensed Chemical Dependency Counselor (LCDC).

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**Potential work opportunities include:**

- Hospitals
- Rehabilitation centers
- Outpatient clinics
- Veteran’s affairs clinics
- Alternative schools
- Research facilities
- Pain management clinics and counseling centers.

**You can make a difference in your life by making a difference in the lives of others!**

**Earning Potential**

Substance abuse, behavioral disorder, and mental health counselor’s salary: $48,623  

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information contact 281-998-6150, x7146 or mentalhealthservices@sjcd.edu

**Information**

The Mental Health Services program is designed to train mental health technicians and prevention specialists in preparation to meet the requirements for testing as a Licensed Chemical Dependency Counselor (LCDC). Each program offers a practicum class that allows students to apply classroom skills in a treatment setting.

**Prevention Specialist**

We are now offering a Substance Abuse Prevention Specialist Occupational Certificate. This 20-hour certificate prepares students to apply to be a Texas Certified Prevention Specialist (CPS). The curriculum is approved by the Texas Department of Health Services.

The coursework, combined with the capstone experience at a prevention approved training center enables students to work in the area of drug prevention in a variety of settings that include:

Substance Abuse Counseling

Are you a compassionate, willing listener who is ready with support or a kind word during a difficult time? If so, San Jacinto College can give you the training you need to provide counseling and other specialized services to individuals and families suffering the devastating effects of substance abuse.

The San Jacinto College substance abuse counseling training program:
Mental Health, Substance Abuse Prevention Specialist, Occupational Certificate

- K-12 schools,
- Juvenile justice settings (alternative schools or youth offender programs),
- Local community coalitions, and
- At-risk programs.

Once coursework is completed, students will need 2,000 hours (1 year) of prevention work experience and pass a state exam to obtain their license as a Certified Prevention Specialist (CPS).

Mental Health Technician

The Mental Health Technician (Psychiatric Aide/Technician) Occupational Certificate prepares students to work with individuals with psychiatric or substance use disorders 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, and dressing patients as well as personal hygiene and activities of daily living.

Potential work opportunities include:

- Aides within inpatient/outpatient psychiatric facilities,
- Day treatment centers,
- Counseling centers, and
- Rehabilitation facilities.

Substance Abuse Counseling

The Substance Abuse Counseling Occupational Certificate and Certificate of Technology prepare 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 (LCDC).

Potential Work opportunities include:

- Hospitals,
- Rehabilitation centers,
- Outpatient clinics,
- Veteran's affairs clinics,
- Alternative schools,
- Research facilities, and
- Pain management clinics and counseling centers.

Associate of Applied Science (AAS)

The combination of the certificates and general education leads to an Associate of Applied Science (AAS) 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. 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 his or her LCDC.

View application and information packet here: https://www.sanjac.edu/career/mental-health-services

Plan of Study

North Campus

5MH-SAC

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Capstone Experience: DAAC 2366 Practicum - Substance Abuse/Addiction Counseling

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.

Mental Health, Substance Abuse Prevention Specialist, Occupational Certificate

We are now offering a Substance Abuse Prevention Specialist Occupational Certificate. This 20-hour certificate prepares students to
apply to be a Texas Certified Prevention Specialist (CPS). The curriculum is approved by the Texas Department of Health Services.

This certificate provides students with the knowledge and skills to help prevent drug and alcohol use and abuse within schools, neighborhoods, and greater communities.

Students will learn to identify the stages of addiction, utilize evidenced-based prevention strategies within a cultural context, identify risk and protective factors for substance use disorders, describe resources for prevention planning, and explain program evaluation methods.

The coursework, combined with the capstone experience at a prevention approved training center enables students to work in the area of drug prevention in a variety of settings that include:

- K-12 schools,
- Juvenile justice settings (alternative schools or youth offender programs),
- Local community coalitions, and
- At-risk programs.

Once coursework is completed, students will need to complete 2,000 hours of prevention work experience and must pass a state exam to obtain their license as a Certified Prevention Specialist (CPS).

For more information contact 281-998-6150, x7146 or mentalhealthservices@sjcd.edu.

**Information**

The Mental Health Services program is designed to train mental health technicians and prevention specialists in preparation to meet the requirements for testing as a Licensed Chemical Dependency Counselor (LCDC). Each program offers a practicum class that allows students to apply classroom skills in a treatment setting.

**Prevention Specialist**

We are now offering a Substance Abuse Prevention Specialist Occupational Certificate. This 20-hour certificate prepares students to apply to be a Texas Certified Prevention Specialist (CPS). The curriculum is approved by the Texas Department of Health Services.

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**Mental Health Technician**

The Mental Health Technician (Psychiatric Aide/Technician) Occupational Certificate prepares students to work with individuals with psychiatric or substance use disorders 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, and dressing patients as well as personal hygiene and activities of daily living.

Potential work opportunities include:

- Aides within inpatient/outpatient psychiatric facilities,
- Day treatment centers,
- Counseling centers, and
- Rehabilitation facilities.

**Substance Abuse Counseling**

The Substance Abuse Counseling Occupational Certificate and Certificate of Technology prepare 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 (LCDC).

Potential Work opportunities include:

- Hospitals,
- Rehabilitation centers,
- Outpatient clinics,
- Veteran’s affairs clinics,
- Alternative schools,
- Research facilities, and
- Pain management clinics and counseling centers.

**Associate of Applied Science (AAS)**

The combination of the certificates and general education leads to an Associate of Applied Science (AAS) 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. 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 his or her LCDC.

View application and information packet here: https://www.sanjac.edu/career/mental-health-services

**Plan of Study**

**North Campus**

6MH-SAPS

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<td>DAAC 1304</td>
<td>Pharmacology of Addiction</td>
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San Jacinto College 2019-2020
Mental Health-Substance Abuse Counseling, Occupational Certificate

Substance Abuse Counseling

Are you a compassionate, willing listener who is ready with support or a kind word during a difficult time? If so, San Jacinto College can give you the training you need to provide counseling and other specialized services to individuals and families suffering the devastating effects of substance abuse.

The San Jacinto College substance abuse counseling training program:

- Prepares students to enter the field of human services and provide specialized services to individuals and their families experiencing the effects of substance abuse;
- Teaches graduates to identify and administer appropriate assessments, diagnosis and treatment of individuals who are, or have been, engaged in substance abuse;
- Requires an internship class where students are placed into a substance abuse facility to apply knowledge learned in the program; and
- Provides students with the necessary educational and employment requirements to become eligible for testing as a Licensed Chemical Dependency Counselor (LCDC).

Chemical dependency is a problem that takes an enormous emotional and financial toll on society. This is an unfortunate issue, but the silver lining is that there are exceptional individuals, like you, who are determined to reverse it. San Jacinto College can give you the training you need to become a vital part of the solution. We will prepare you to provide counseling and other specialized services to individuals and families suffering from the devastating effects of substance abuse.

Potential work opportunities include:

- Hospitals,
- Rehabilitation centers,
- Outpatient clinics,
- Veteran's affairs clinics,
- Alternative schools,
- Research facilities, and
- Pain management clinics and counseling centers.

You can make a difference in your life by making a difference in the lives of others!

Earning Potential

Substance abuse, behavioral disorder, and mental health counselor's salary: $48,623

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information contact 281-998-6150, x7146 or mentalhealthservices@sjcd.edu

Information

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Potential Work opportunities include:

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• Rehabilitation centers,
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• Veteran’s affairs clinics,
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View application and information packet here: https://www.sanjac.edu/career/mental-health-services

Plan of Study

North Campus  
6MH-SAC

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<td>DAAC 2341</td>
<td>Counseling Alcohol and Other Drug Addictions</td>
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<td>PSYT 1371</td>
<td>Mental Health Legal and Ethical Issues</td>
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<td>DAAC 1304</td>
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<td>SCWK 2301</td>
<td>Assessment and Case Management</td>
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<td>DAAC 2366</td>
<td>Practicum - Substance Abuse/Addiction Counseling</td>
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Capstone Experience: DAAC 2366 Practicum - Substance Abuse/ Addiction Counseling

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.

Nursing, Associate Degree Nursing, Associate of Applied Science

If you have a compassionate, take-charge personality with a desire to make patients feel comforted in the face of illness, then a career in nursing may be the right career for you. As the population is quickly expanding and aging the need for quality health care is greater than ever, and professionals who can provide that care are in short supply. A nursing degree from San Jacinto College will change your life and help save the lives of others.

The San Jacinto College Associate of Applied Science (AAS) degree in Nursing:

• Qualifies students to apply for the National Council Licensure Exam-Registered Nurse (NCLEX-RN) required of all registered nursing candidates. A license to practice as a registered nurse (RN) is granted by the state to graduates who pass this examination;
• Educates nursing students on the College campus where they share learning experiences with other college students;
• Provides unique learning opportunities in theoretical and clinical environments, concurrently, to prepare the student for successful entrance into professional nursing. Experience in patient care is received in hospitals and other agencies in the community;
• Provides opportunity to practice with high-fidelity patient simulators; and
• Focuses on helping students understand the nursing scope of practice and adherence to ethical nursing practice to promote quality patient outcomes.

Accredited by:
The Accreditation Commission for Education in Nursing (ACEN)  
3343 Peachtree Road NE, Suite 850  
Atlanta, Georgia 30326
Career Opportunities

As a nurse, the job opportunities are endless. Upon successful completion of the curriculum and passing of the NCLEX-RN, graduates are entering a field of infinite professional opportunities. The registered nurse is seen as a vital member of the health care team and is responsible for coordinating the majority of the care related to the patient. As the first point of contact between the patient and physician, professional nurses encompass all levels of health and well-being.

The registered nurse can secure employment in:

- Hospitals and clinics,
- Home health and community health settings,
- Education, and
- Research and computer/technology.

San Jacinto College has transfer agreements with universities so our graduates can pursue bachelor's degrees.

Earning Potential

Registered nurses median salary / year: $77,987


For more information contact the following:

Central Campus

Ira Robins - Sr. Administrative Assistant (Students with last names beginning with A-K) 281-476-1501, x1440 Ira.Robins@sjcd.edu

Linda Navejar - Sr. Administrative Assistant (Students with last names beginning with L-Z) 281-476-1501, x1441 Linda.Navejar@sjcd.edu

North Campus

281-998-6150, x7726 or email rn-nursingnorth@sjcd.edu

Campuses

Central Campus
North Campus

Admission

Associate Degree Nursing Program Central and North Campuses

A student enrolled in the Associate Degree Nursing program (ADN) is a novice in health care who generally does not have any formal nursing education. Successful completion of the ADN program by these students will qualify graduates to apply for the National Counsel Licensure Examination for Registered Nurse (NCLEX-RN).

Students applying for admission to the ADN program must submit the following items:

1. Application for Admission to San Jacinto College via the website at https://www.sanjac.edu/admissions-aid/steps-enroll (provided online).
2. Application for the Associate Degree Nursing Program (provided online) during the application period.
3. Application Periods:
The ADN program accepts applicants twice a year (spring and fall). The ADN program applications can be obtained on the ADN admissions webpage (https://www.sanjac.edu/adn-admission-information). Please see the ADN webpage (https://www.sanjac.edu/our-programs/academic-programs/health-sciences/nursing) for specific application periods. Students are strongly encouraged to contact a Counselor or Education Planner in the Educational Planning & Counseling Center to assist the San Jacinto College and ADN Admissions process. Please call 281-998-6150, x1014 or x2317 to schedule an appointment.

4. Selection criteria.
Students should submit all required documents in one packet by the last day of the application period. Students who apply for admissions to the ADN program will be selected on the basis of the highest score on the admissions and scoring rubric. The rubric components can be found on the ADN website. 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 the College Student Handbook (https://publications.sanjac.edu/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. Applicants must submit official transcripts from all colleges previously attended, transcripts should be 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 course work taken outside of San Jacinto College is 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 unofficial transcripts with the 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 percent in EACH section of reading comprehension, grammar, vocabulary, anatomy and physiology, and math is required. The learning styles and critical thinking sections are 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 the Testing Center-HESI website (https://www.sanjac.edu/apply-register/overview/testing/hesi-%E2%80%93-rn-information) for test dates on Central campus.

8. Criminal Background Check through the Texas Board of Nursing.
All applicants are required to complete a criminal background check (CBC) as part of the application/admissions process. According to the Texas Board of Nursing (BON) 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 should directly contact the Texas BON. Applicants should complete the Texas Board of Nursing CBC prior to entry into the program. Applicants will be required to submit a blue card or decision letter to confirm admission and progression into the program.

9. Completion of Criminal Background Check and Drug Screen through CastleBranch. The procedure for completing the criminal background check and drug screen requirements can be found on the ADN webpage (https://www.sanjac.edu/aden-admission-information).

10. Additional clinical requirements. Evidence of completing the American Heart Association (AHA) CPR and Immunization requirements must be uploaded to the CastleBranch website. Please see the ADN webpage (https://www.sanjac.edu/aden-admission-information) for additional information regarding uploading the documents to CastleBranch.

In order for an ADN application to be accepted, students must have completed a minimum of:

- a. CPR - from the American Heart Association Health Care Provider (online courses are not accepted); Copy of CPR Card to be uploaded to CastleBranch
- b. Varicella Immunization #1, #2 and a positive titer
- c. Hepatitis B series and a positive titer
- d. Hepatitis C titer (negative titer)
- e. Or TWINRIX series completed and a positive titer
- f. Measles, Mumps, and Rubella (MMR) Immunizations #1, #2 and a positive titer
- g. Tdap (Tetanus, Diphtheria and Pertussis) within the last 10 years
- h. Current Flu vaccination
- i. TB Skin Test (within 12 months); Chest X-Ray (if applicable)
  - i. The Texas Administrative Code Rule 97.64 states that enrolled students may not participate in course work activities, including direct patient contact, until full vaccination series have been completed.
  - ii. Titers for MMN, 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.
  - iii. Clinical Affiliates may request additional components.

iv. Applicants must pass the drug screen and background check to be considered for admission and progression into the program.

11. 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 ADN department and medical opinions or policy of hospital/agencies that 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 ADN 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.

Plan of Study
Central and North Campuses
3NUR-ADN

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<td>RNSG 1105</td>
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<td>RNSG 1215</td>
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<td>RNSG 1160</td>
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<td>RNSG 2213</td>
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Summer Year One Term

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<td>RNSG 2201</td>
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Nursing, LVN/Paramedic to RN Transition Nursing, Associate of Applied Science

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<td>RNSG 2260</td>
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<td>RNSG 2332</td>
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<td>RNSG 2263</td>
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**Summer Year Two Term**

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<td>RNSG 2160</td>
<td>Clinical: Nursing Management of Client Care</td>
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<td>RNSG 2130</td>
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**Total Credits**: **60**

Students must satisfactorily complete BIOL 2301 Human Anatomy and Physiology I (lecture)/BIOL 2101 Human Anatomy and Physiology I (lab), BIOL 2302 Human Anatomy and Physiology II (lecture)/BIOL 2102 Human Anatomy and Physiology II (lab), BIOL 2320 Microbiology for Health Science Majors (lecture)/BIOL 2120 Microbiology for Health Science Majors (lab); and ENGL 1301 Composition I to enroll in any nursing course. Biology courses must be taken within the last five years with a passing grade no less than C. College Preparatory courses, which have numbers beginning with zero (0), do not apply toward the AAS degree.

**Verification of Workforce Competencies:**

1. **Capstone Experience** - RNSG 2130 Professional Nursing Review and Licensure Preparation
2. **External Learning Experience** - RNSG 2160 Clinical: Nursing Management of Client Care

- RNSG courses must have been taken within the last two years with a passing grade no less than C.
- Course outline is representative of fall semester entry only. Adjustments will be made for spring semester entry.

**Program Information**

Are you already working as a Licensed Paramedic or Licensed Vocational Nurse in Texas? Are you ready to expand your practice to the associate degree nursing level at an accelerated pace?

If so, the Associate Degree in Nursing (ADN) transition program may be just right for you!

The San Jacinto College Associate of Applied Science degree in Nursing (ADN):

- Qualifies students to apply for the National Council Licensure Exam-Registered Nurse (NCLEX-RN) required of all registered nursing candidates. A license to practice as a registered nurse (RN) is granted by the state to those graduates who pass this examination;
- Educates nurses on the College campus where they share learning opportunities with other experienced, professional college students in the health care industry. Student learning is also conducted in local hospitals, community agencies, and the San Jacinto College South campus state-of-the-art simulation lab;
- Provides student clinical experiences concurrently with theory courses in general and specialty professional nursing education, taught by faculty who instruct and supervise; and
- Focuses on helping students develop as individuals and responsible citizens who become competent practitioners in professional nursing.

**Career Opportunities**

As a nurse, the job opportunities are endless. Upon successful completion of the curriculum and passing of the NCLEX-RN, graduates are entering a field of infinite professional opportunities and challenges. The registered nurse is seen as a vital member of the health care team and is responsible for being the integral part of coordinating the majority of the care related to the patient. As the first point of contact between the patient and health care providers, the role of professional nurse encompasses all levels of health and well-being.

The registered nurse can secure employment in:

- Hospitals and clinics,
- Home health and community health settings,
- Education, and
- Research and computer/technology arenas.
Admission Information

Applications for entry into the program are accepted each year in the fall and spring. For dates, please see the LVN webpage (https://www.sanjac.edu/adn-transition) on the San Jacinto College website.

Earning Potential

Registered Nurse median salary: $77,987 per year1


For more information, please contact the following:
281-998-6150 x3315 or adn.transition@sjcd.edu

Campus

South Campus

Transition Program Offered at South Campus effective Fall 2015.

The Associate Degree Nursing (ADN) Transition program is a career transition opportunity designed for license vocation 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 four (4) 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.

Applicants for the program must meet the requirements for general admission to the College and must also meet program specific requirements. For detailed information concerning admission requirements and deadlines for submitting applications and related documents, contact the Nursing department.

Contact Information:
Email: SJCSouth-ADN@sjcd.edu
Phone: (281) 998-6150, x3315
Website: www.sanjac.edu/adn-transition

Admission

Associate Degree Nursing Program Central and North Campuses

A student enrolled in the Associate Degree Nursing program (ADN) is a novice in health care who generally does not have any formal nursing education. Successful completion of the ADN program by these students will qualify graduates to apply for the National Counsel Licensure Examination for Registered Nurse (NCLEX-RN).

Students applying for admission to the ADN program must submit the following items:

1. Application for Admission to San Jacinto College via the website at https://www.sanjac.edu/admissions-aid/steps-enroll (provided online).
2. Application for the Associate Degree Nursing Program (provided online) during the application period.
3. Application Periods:
The ADN program accepts applicants twice a year (spring and fall). The ADN program applications can be obtained on the ADN admissions webpage (https://www.sanjac.edu/adn-admissions-information). Please see the ADN webpage (https://www.sanjac.edu/our-programs/academic-programs/health-sciences/nursing) for specific application periods. Students are strongly encouraged to contact a Counselor or Education Planner in the Educational Planning & Counseling Center to assist the San Jacinto College and ADN Admissions process. Please call 281-998-6150, x1014 or x2317 to schedule an appointment.
4. Selection criteria.
Students should submit all required documents in one packet by the last day of the application period. Students who apply for admissions to the ADN program will be selected on the basis of the highest score on the admissions and scoring rubric. The rubric components can be found on the ADN website. 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 the College Student Handbook (https://publications.sanjac.edu/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. Applicants must submit official transcripts from all colleges previously attended, transcripts should be 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 course work taken outside of San Jacinto College is 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 unofficial transcripts with the 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 percent in EACH section of reading comprehension, grammar, vocabulary, anatomy and physiology, and math is required. The learning styles and critical thinking sections are 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 the Testing Center-HESI website (https://www.sanjac.edu/apply-register/
overview/testing/hesi-%E2%80%93-rn-information) for test dates on Central campus.

8. **Criminal Background Check through the Texas Board of Nursing.**
All applicants are required to complete a criminal background check (CBC) as part of the application/admissions process. According to the Texas Board of Nursing (BON) 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 should directly contact the Texas BON. Applicants should complete the Texas Board of Nursing CBC prior to entry into the program. Applicants will be required to submit a blue card or decision letter to confirm admission and progression into the program.

9. **Completion of Criminal Background Check and Drug Screen through CastleBranch.** The procedure for completing the criminal background check and drug screen requirements can be found on the ADN webpage (https://www.sanjac.edu/adn-admission-information).

10. **Additional clinical requirements.** Evidence of completing the American Heart Association (AHA) CPR and Immunization requirements must be uploaded to the CastleBranch website. Please see the ADN webpage (https://www.sanjac.edu/adn-admission-information) for additional information regarding uploading the documents to CastleBranch. In order for an ADN application to be accepted, students must have completed a minimum of:
   a. CPR - from the American Heart Association Health Care Provider (online courses are not accepted); Copy of CPR Card to be uploaded to CastleBranch
   b. Varicella Immunization #1, #2 and a positive titer
   c. Hepatitis B series and a positive titer
   d. Hepatitis C series (negative titer)
   e. Or TWINRIX series completed and a positive titer
   f. Measles, Mumps, and Rubella (MMR) Immunizations #1, #2 and a positive titer
   g. Tdap (Tetanus, Diphtheria and Pertussis) within the last 10 years
   h. Current Flu vaccination
      i. TB Skin Test (within 12 months); Chest X-Ray (if applicable)
         i. The Texas Administrative Code Rule 97.64 states that enrolled students may not participate in course work activities, including direct patient contact, until full vaccination series have been completed.
         ii. Titters 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.
         iii. Clinical Affiliates may request additional components.
         iv. Applicants must pass the drug screen and background check to be considered for admission and progression into the program.

11. **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 ADN department and medical opinions or policy of hospital/agencies that 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 ADN 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.

**Nursing - Associate Degree Nursing Transition Program**

Following are the admission requirements for the Associate Degree Nursing Transition program.

- Licensed Vocational Nurse (LVN) or Paramedic License
- Current and Active CPR card BLS/ACLS from the American Heart Association
- Official transcripts from all institutions
- GPS Report after transcript evaluation is complete
- Copy of HESI A2 scores (limit 2 reports & each section must score 75 or higher)
- Copy of HESI A2 critical thinking report
- Cumulative GPA of 2.5 or higher
- Successful completion of all the required pre-requisite courses with a pre-requisite grade point average (GPA) of 2.5 or higher.

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Composition I</td>
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<td>ENGL 1302</td>
<td>Composition II</td>
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<tr>
<td>or ENGL 2311</td>
<td>Technical and Business Writing</td>
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<td>MATH 1314</td>
<td>College Algebra</td>
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<tr>
<td>or MATH 1342</td>
<td>Elementary Statistical Methods (Statistics)</td>
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<td>PSYC 2301</td>
<td>General Psychology</td>
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<td>PSYC 2314</td>
<td>Lifespan Growth and Development</td>
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<td>BIOL 2301</td>
<td>Human Anatomy and Physiology I (lecture)</td>
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<td>BIOL 2102</td>
<td>Human Anatomy and Physiology II (lab)</td>
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<td>BIOL 2320</td>
<td>Microbiology for Health Science Majors</td>
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<td>(lecture)</td>
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<tr>
<td>BIOL 2120</td>
<td>Microbiology for Health Science Majors</td>
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<td></td>
<td>(lab)</td>
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<tr>
<td>Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts) Elective</td>
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- Immunizations
  - Tetanus (td/tdap) within 10 years
  - Seasonal Flu within 1 year
  - TB (PPD) skin test within 1 year or chest x-ray within 2 years
  - MMR titer that shows immunity
  - Varicella titer that shows immunity
  - Hep B titer that shows immunity

**Additional Links**

Directions to San Jacinto College South / Map of South Campus (https://www.google.com/maps/place/San+Jacinto+College +South/@29.578642,-95.204999,17z/data=!3m1!4b1!4m2!3m1!1s0x0:0x392d12b89cc394b3f?hl=en)
List of courses that meet the Humanities requirement for ADN Transition (https://www.sanjac.edu/sites/default/files/media-file/Courses-that-meet-the-Humanities-requirement-for-ADN-Transition.pdf)

Applications for Spring will be accepted starting in June 2018. Applications will be accepted in the South Campus Nursing Office located at the South Campus in Building 1 Room 253b (S-1.253b) on Tuesdays, Wednesdays, & Thursdays from 9:00 a.m. to 11:00 a.m. & 2:00 - 3:30 p.m.

Please make copies for your records, prior to submitting your application. Unfortunately, the office staff will not be able to make copies of documents or print applications for you.

All required documents for application to the program must be submitted as a complete packet and applications must be typed. We will return incomplete packets and ask that you resubmit prior to the application period deadline. Please check your packet carefully because we are unable to accept incomplete applications. Late applications will not be accepted.

We require official transcripts in a sealed envelope for every college attended, including a San Jacinto College transcript, if attended.

Please note that all applicants must attend an information session for each application period applying. Registration is not required. However, seating and entry is based on a first come first serve basis. In preparation for the information sessions, please bring a pen and paper for note taking. Be on time as late entry will not be granted. All late arrivals will be asked to attend an information session, per schedule, at a later date. If the applicant is late to the last scheduled information session for the application period, the applicant will be asked to apply the following semester.

If an applicant fails to attend an information session for the semester in which they are making application, their application will not be accepted for that semester.

If an applicant has questions, please allow 24-48 hours for a reply.

Phone: 281-998-6150 ext 3315
Email: adn.transition@sjcd.edu

Mandatory Information Sessions for Spring 2019 Application Period

TBD

Texas Board of Nursing

We highly recommend students interested in a nursing career visit the Texas Board of Nursing website. It is an excellent source of information for students looking to obtain a current license in the state of Texas. You may find this information at: http://www.bon.texas.gov/

Student Achievement Data

- First Time Pass Rate on National Council Licensure Exam for Registered Nurses (NCLEX-RN®): **88.33%**
- Students completing the program within 150% of program length: **97.62%**
- Graduates job placement: **94%**

• (Data are for students that completed the program during the 2016 – 2017 academic year.)

Plan of Study

South Campus

3NUR-LNTRN and 3NUR-PMTRN

<table>
<thead>
<tr>
<th>Course</th>
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<td>BIOL 2302 &amp; BIOL 2102</td>
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<td>PSYC 2301</td>
<td>General Psychology</td>
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Credits: 30

First Term

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<td>RNSG 1227</td>
<td>Transition to Professional Nursing</td>
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<tr>
<td>RNSG 1341</td>
<td>Common Concepts of Adult Health</td>
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<td>RNSG 1261</td>
<td>Clinical Nursing Common Concepts for Adult Health</td>
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<tr>
<td>RNSG 1301</td>
<td>Pharmacology</td>
<td>3</td>
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<tr>
<td>RNSG 1108</td>
<td>Dosage Calculations for Nursing</td>
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Credits: 13

Second Term

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<tr>
<td>RNSG 2208</td>
<td>Maternal Newborn Nursing and Women’s Health</td>
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<td>RNSG 2260</td>
<td>Clinical Registered Nursing</td>
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<td>RNSG 2201</td>
<td>Care of Children and Families</td>
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<tr>
<td>RNSG 2262</td>
<td>Clinical Nursing Care of Children and Families</td>
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Credits: 8

Third Term

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<tr>
<td>RNSG 2213</td>
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<td>RNSG 2261</td>
<td>Clinical Mental Health Nursing</td>
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<tr>
<td>RNSG 2371</td>
<td>Concepts of Advanced Nursing Practice and Management</td>
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<tr>
<td>RNSG 2163</td>
<td>Clinical: Concepts of Advanced Nursing Practice and Management</td>
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</table>

Credits: 3
Nursing, Vocational Nursing, Level 2 Certificate

Program Information
If you are a compassionate, take-charge person with a desire to make patients feel comforted in the face of illness, then a career in vocational nursing may be the right career for you. As the population is quickly expanding and aging, the need for quality health care is greater than ever and those who can provide that care are in short supply. A nursing certification from San Jacinto College will change your life and help save the lives of others.

The San Jacinto College vocational nursing curriculum includes:

- a focus on helping students develop as individuals and as responsible citizens who will become a competent practitioner in nursing;
- a combination of class lectures, nursing skills training, and clinical experience in a variety of health care settings; and
- an approval by the Texas Higher Education Coordinating Board and the Texas Board of Nursing. Upon successful completion of the program, graduates may apply to take the National Council Licensure Examination - Practical Nursing (NCLEX-PN® exam). Those students who pass this examination are granted a license by the Texas Board of Nursing to practice as a Licensed Vocational Nurse.

Admission Information
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;
- Have a GPA minimum of 2.25 on college-level coursework;
- Pass a physical examination and meet specific immunization requirements; and
- Pass a criminal history check and drug screen.

Please note that 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 Texas Board of Nursing; Rules and Regulations, February 2018).

Career Opportunities
The US Department of Labor is reporting a sharp increase for these jobs, with specific increases in large cities and metropolitan areas.

Graduates can work in:

- Hospitals,
- Out-patient facilities, and
- Nursing homes.

Earning Potential
Licensed Vocational Nurse (LVN) median salary / year: $48,783


For more information contact the following:

North Campus
281-998-6150, x7128 or vnnursingnorth@sjcd.edu

South Campus
281-998-6150, x3592 or vocational.nursing@sjcd.edu

Campus
North Campus
South Campus

Licensed Vocational Nurses (LVNs) (also known as Licensed Practical Nurses, LPNs) are a valuable member of the healthcare team and provide basic nursing care. They work under the direction of registered nurses and doctors. The vocational nursing curriculum is 45 credits and includes a combination of 480 hours of class lectures, 416 hours of lab, and 448 hours of nursing skills training and clinical experience in a variety of health care settings. The program is approved by the Texas Higher Education Coordinating Board (THECB) and the Texas Board of Nursing. Upon successful completion of the program (minimum grade of C in each course), graduates are awarded a Level 2 Certificate, and are eligible to take The National Council Licensure Examination for Practical Nurses (NCLEX-PN® exam). 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 program specific requirements. For detailed information concerning admission requirements and deadlines for submitting applications and related documents, contact the department of vocational nursing.

Texas Board of Nursing
333 Guadalupe
Suite 3-460
Austin, Texas 78701-3944
Phone: 512-305-7400
Fax: 512-305-7401

1 Students may take MATH 1342 or MATH 1314 or higher. Students who plan to pursue a bachelor’s degree should take MATH 1342.
Applicants can address any concerns directly with the Texas Board of Nursing.

**Application Dates**

Applications for entry into the program are accepted each year in the fall and spring. Periodically, based on need, the North Campus may offer a summer and/or evening sequence of courses. For exact dates, please see www.sanjac.edu/vn.

**Plan of Study**

North and South Campuses

5NUR-LVN

The prerequisite for enrolling in the first term is acceptance into the program.

<table>
<thead>
<tr>
<th>Course Prerequisites</th>
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**First Term**

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<td>VNSG 1327</td>
<td>Essentials of Medication Administration</td>
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<td>VNSG 1423</td>
<td>Basic Nursing Skills</td>
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<td>VNSG 2431</td>
<td>Advanced Nursing Skills</td>
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<tr>
<td>VNSG 1260</td>
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**Second Term**

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<td>VNSG 1331</td>
<td>Pharmacology</td>
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<tr>
<td>VNSG 1261</td>
<td>Clinical II - Licensed Practical/Vocational Nursing Training</td>
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<tr>
<td>VNSG 1226</td>
<td>Gerontology ¹</td>
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<tr>
<td>VNSG 1162</td>
<td>Clinical III - Practical Nurse¹</td>
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**Third Term**

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<td>VNSG 1334</td>
<td>Pediatrics</td>
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<td>Mental Health and Mental Illness</td>
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<td>VNSG 2161</td>
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<tr>
<td>VNSG 1119</td>
<td>Leadership and Professional Development</td>
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**Total Credits** 45

¹ VNSG 1226 Gerontology and VNSG 1162 Clinical III - Practical Nurse will rotate second and third term.

**Capstone Experience:** VNSG 1119 Leadership and Professional Development

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.

**Occupational Therapy Assistant, Associate of Applied Science**

**Program Information**

For more information on program accreditation, please see the San Jacinto College website: www.sanjac.edu/program/occupational-therapy-assistant.

Showing compassion and patience are strengths of those who choose occupational therapy for a career. You will assist patients to develop, recover and improve skills for daily living.

As an occupational therapy assistant (OTA), you will work under the direction and supervision of an occupational therapist in a variety of settings and situations from adults recovering from a stroke, to children and young adults with developmental disabilities. Patients and their needs are widely varied and each day holds new, rewarding challenges.

The San Jacinto College occupational therapy assistant program:

• Includes three Level I fieldwork experiences over the span of three semesters in the areas of pediatrics, mental health, and physical disabilities. In the final semester, students complete Level II fieldwork, which consists of two 8-week rotations in pediatrics or physical disability areas;
• Consists of 60 credit hours; 23 credit hours are prerequisites and 37 credit hours of core courses; and
• Upon completion of the program, students will be prepared to test for the National Board of Certification in Occupational Therapy (NBCOT) to become a certified occupational therapy assistant (COTA).

OTAs work in a variety of settings including, but not limited to: hospitals, pediatric clinics, skilled nursing facilities, home health, and school systems.

**Career Opportunities**

Employment of occupational therapy assistants is expected to increase 43 percent over the next seven years, according to the Bureau of Labor and Statistics. This adds 14,100 OTA professionals to the field.

According to the 2017 US News Rankings, Occupational Therapy Assistants are ranked No. 1 in Best Health Care Support Jobs and No. 12 in the 100 Best Jobs.
Earning Potential
Occupational Therapist Assistant Median Salary: $66,588\(^1\) per year

\(^1\) Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information contact 281-998-6150, x3086

Campus
South Campus

Information
Occupational Therapy Assistants (OTA) are a vital member of the health care team. The everyday tasks that most of us take for granted - getting dressed or brushing our teeth, for instance - are an OTA's crowning achievements. These health care professionals help patients develop, recover, and improve the skills needed to get back into the routine of daily living and working. OTAs are directly involved in providing therapy to patients and work under the direction of an Occupational Therapist (OT). OTAs work primarily in hospitals, nursing care facilities, in home healthcare, and in schools. OTAs spend much of their time on their feet working with patients and engaging them in everyday activities.

View admission information and obtain an application packet here: https://www.sanjac.edu/career/occupational-therapy-assistant

Plan of Study
South Campus
3OCC-THRPY

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<td>Human Structure and Function in Occupational Therapy</td>
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<td>Therapeutic Use of Occupations or Activities I</td>
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<td>Neurology in Occupational Therapy</td>
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<td>OTHA 1160</td>
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<td>OTHA 1319</td>
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<td>OTHA 1253</td>
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<td>OTHA 2235</td>
<td>Health Care Management in Occupational Therapy</td>
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<td>OTHA 1162</td>
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Total Credits: 60

Capstone Experience: OTHA 2267 Practicum (or Field Experience) - Occupational Therapy Assistant

Note: Occupational Therapy Assistant students must earn a “C” or higher in all courses in the curriculum. Additionally, students must maintain an overall grade point average of at least 2.0 in order to graduate from the Occupational Therapy Assistant program.

Pharmacy Technician, Certificate of Technology

Have you always been fascinated by medicine and technology? Do you excel in science and math? If so, you can become a vital member of the health care team by pursuing a career as a pharmacy technician.

Program Information

Employment of pharmacy technicians is expected to increase faster than the average for all occupations. This demand will be due to the expansion of retail pharmacies, the increased number of middle-aged and elderly people, and the increasing roles and responsibilities of pharmacy technicians.

Career Opportunities

San Jacinto College 2019-2020
Graduates of our program are able to work as pharmacy technicians in:

- Hospitals,
- Nursing homes,
- Retail,
- Home health care, and
- Public and government health agencies.

**Earning Potential**

Pharmacy Technician median salary: $34,422 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

**Campuses**

North Campus
South Campus

For more information, contact the following:

North campus
281-998-6150, x7348
North.PharmTech@sjcd.edu

South campus
281-998-6150, x3597
South-PharmTech@sjcd.edu

**Information**

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's pharmacy technician program is a 12-month certificate program designed to provide applicants with the skills and knowledge to pass the National Certification Exam to be credentialed as a certified pharmacy technician 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 and the Accreditation Council for Pharmacy Education (ASHP/ACPE). The program curriculum requires students to complete 32 credit hours that total 864 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 register to take the National Certification Exam. 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. 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.

Applicants for the program must meet the requirements for general admission to the College and must also meet program specific requirements. For detailed information concerning admission requirements and deadlines for submitting applications and related documents, contact the Pharmacy Technician Department.

View admission procedures and program requirements here: https://www.sanjac.edu/career/pharmacy-technician

**Plan of Study**

**North and South Campuses**

4PHAR

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<thead>
<tr>
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<td>Drug Classification</td>
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<td>Pharmaceutical Mathematics I</td>
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<td>PHRA 1313</td>
<td>Community Pharmacy Practice I</td>
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<td>PHRA 1441</td>
<td>Pharmacy Drug Therapy and Treatment</td>
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<td>PHRA 1347</td>
<td>Pharmaceutical Mathematics II</td>
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<td>Compounding Sterile Preparations and Aseptic Technique</td>
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<td>Institutional Pharmacy Practice</td>
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<td>PHRA 1243</td>
<td>Pharmacy Technician Certification Review</td>
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<td>Total Credits</td>
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**Capstone Experience:** PHRA 2261 Clinical-Pharmacy Technician II

*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 Trainer, Certificate of Technology

Program Information
The San Jacinto College personal trainer program utilizes a curriculum that is nationally recognized.

At San Jacinto College, you can depend on classes that get you the results for which you are looking. Our professional instructors have the experience and knowledge needed to teach and motivate students who are seeking a healthy lifestyle and want to help others do the same. Many of those with personal trainer certifications do not have a business plan or adequate skills to work with clients. Our program provides hands-on training and education for students looking to become personal trainers through the study of scientific principles, methodologies and research applied to exercise and fitness. They also gain experience in marketing, health promotion and current business practices from those working in the industry. Upon completion of the program requirements, students earn a certificate of technology credential and are thoroughly prepared to take a nationally recognized personal trainer certification exam.

Program Outcomes
The personal trainer certificate program:

• Builds a strong background in the areas of anatomy, physiology, kinesiology, biomechanics, healthy lifestyle, safety, psychology, and health promotion;
• Develops a strong business model through offering information about best practices, professional ethics, marketing, record keeping, and communication; and
• Prepares students to take any of the nationally-recognized certification exams.

Job Outlook
Projected 13 percent increase in jobs through the year 2022.

As baby boomers age, jobs for fitness trainers and instructors are expected to rise in fitness centers.

Obesity in young people and general overall health issues are causing a need for more fitness trainers.

Classes such as yoga and pilates are expected to continue to increase due to older adults wanting relief from stress, arthritis, and other health issues.

Business and government are recognizing the benefits for employees to be active, with more incentives being offered to join gyms.

Earning Potential
Personal trainers can earn an average $20.62 / hour.

Learn from Top-rated Instructors
We know that you have choices when it comes to personal trainer certification programs, so why choose San Jacinto College? We offer the very best hands-on approach to becoming a personal trainer. We have the latest in industry equipment and our instructors are leaders in their fields. Finding what works for you means that you need a place where you can receive personal instruction in the knowledge and skills to become a successful personal trainer. We are that place!

Do You Have What It Takes to Be a Personal Trainer?
Do you have a passion for fitness?
Do you enjoy learning about exercise?
Can you motivate others?
Do you have customer service skills?
Are you a good listener?
Do you have problem-solving skills?
Are you a good communicator?

Campus(es)
South Campus

For more information, contact 281-998-6150, x3350.

Information
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.

Plan of Study

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San Jacinto College 2019-2020
San Jacinto College

FITT 2413   Exercise Science                          4
HPRS 1202   Wellness and Health Promotion               2
FITT 2301   Lifestyle Change for Wellness               3

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<td>FITT 2471</td>
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Credits: 11

Capstone Experience: FITT 2309 Theory of Exercise Program Design and Instruction

Eligible for any nationally recognized personal trainer credentialing exam.

Physical Therapist Assistant, Associate of Applied Science

Program Information
Are you patient, compassionate and persevering? These are the qualities that can help you become a physical therapist assistant (PTA). As a PTA, you will work under the direction and supervision of physical therapists in a variety of settings, providing services for patients which help decrease their pain, improve their mobility, restore function and minimize disabilities.

The San Jacinto College physical therapist assistant program:

- Is a total of 66 credit hours, including three clinical affiliations, and the student is awarded an associate of applied science degree upon completion of the program. Successful completion of the program in two years prepares graduates for the national licensing exam for physical therapist assistants; and
- Trains students to help patients to regain strength, range of motion, function and movement.

Additional Information
San Jacinto College boasts a 100 percent pass rate on the national licensing exam in the graduating cohorts from 2009-2016. Graduates have a high employment rate within six months of passing the licensing exam.

The PTA program at San Jacinto College is accredited by the:

Commission on Accreditation in Physical Therapy Education

Career Opportunities
Employment of physical therapist assistants is expected to increase 30 percent over the next 10 years (BLS.gov, 2016).

Physical therapy assistants work under the supervision of physical therapists in a variety of settings including, but not limited to:

- Acute care,
- Hospitals,
- Rehab hospitals,
- Out-patient clinics,
- Aquatics,
- Pediatrics,
- Geriatrics, and
- Home health.

Earning Potential
Physical Therapist Assistant median salary: $68,013¹ per year

¹ Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, contact 281-998-6150, x3350 or email PTAprogram@sjcd.edu.

Campus
South Campus

Information
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, outpatient 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
1111 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 66 semester credit hours including three clinical rotations. The student is awarded an Associate of Applied Science (AAS) 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
Admission

Applicants to the program must meet the requirements for general admission to the College and must also meet program specific requirements. For detailed information concerning admission requirements and deadlines for submitting applications and related documents, contact the physical therapist assistant department.

Contact Information:
Email: ptaprogram@sjcd.edu
Phone: (281) 998-6150 ext. 3350
Website: https://www.sanjac.edu/program/physical-therapist-assistant

For more information on the licensing process visit the American Physical Therapy Association which provides information on the profession of physical therapy. www.apta.org

For complaints regarding the PTA program or a PTA student, contact the program director or fill out the Complaint Form at: https://www.sanjac.edu/sites/default/files/inline-files/Complaints%20Form%20revised%201.30.13.pdf.

Plan of Study

South Campus
3PH-THRPY

Sample 2-Year Schedule

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<td>PTHA 1305</td>
<td>Basic Patient Care Skills</td>
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<td>PTHA 1313</td>
<td>Functional Anatomy</td>
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<td>Therapeutic Exercise</td>
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<td>PTHA 1431</td>
<td>Physical Agents</td>
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Fifth Term

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<tr>
<td>PTHA 2461</td>
<td>Clinical III - PTA</td>
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**Total Credits: 66**

**Capstone Experience:** PTHA 2461 Clinical III - PTA

Applicants are encouraged to take the required courses identified with (1) prior to entering the PTA program.

Respiratory Care, Associate of Applied Science

As a respiratory care practitioner, breathing easily will become your expertise. Passionate practitioners care for a variety of patients, including newborn infants in respiratory distress, children with asthma or pneumonia, adult victims of trauma, and older patients with emphysema or cardiac failure.

The San Jacinto College Respiratory Care program:

- Offers a comprehensive curriculum for the preparation of respiratory care practitioners in the field of respiratory therapy, and is accredited by the Commission on Accreditation for Respiratory Care;
- Prepares students for the responsibility of treatment, management, control, diagnostic evaluation, and care of patients with deficiencies and abnormalities of the cardiopulmonary system; and
- Allows graduates to gain hands-on experience as respiratory care practitioners by administering therapeutic gases, medications, chest therapy, pulmonary function testing, arterial blood gas analysis, hemodynamic monitoring, and mechanical ventilation to patients in...
hospitals in the greater Houston area, including the Texas Medical Center.

Additional Information
Upon completion, students are eligible for admission to the credentialing examinations for respiratory therapy offered by the National Board for Respiratory Care (CRT and RRT) and may also apply for a Respiratory Care Practitioner License from the Texas Medical Board.

Career Opportunities
Employment of respiratory therapists is expected to increase faster than the average for all occupations according to the Bureau of Labor Statistics, because of substantial growth of the middle-aged and elderly population. Respiratory Therapists are employed in:

- Hospitals,
- Respiratory therapy clinics,
- Nursing homes,
- Home health agencies, and
- Firms that supply respiratory equipment for home use.

Earning Potential
Respiratory Therapist median average salary: $60,972 per year


For more information please contact 281-998-3612.

Campus
Central Campus

Links
Application packet and other important information: www.sanjac.edu/career/respiratory-care

Information
A criminal background check and drug screen is required for all respiratory care 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 (AAS) degree. Graduates are qualified to apply to take the Therapist Multiple-Choice Examination administered by the National Board for Respiratory Care for credentialing.

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 Central campus.

Philosophy
The philosophy of the Department of Respiratory Care adheres to the philosophy of San Jacinto College. Respiratory Care is the allied health discipline that 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 San Jacinto College Respiratory Care program are prepared as contributing members of the health care team.

Objectives
Upon completion of the Respiratory Care program, 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
Applicants must meet all College general admission requirements.

Before submitting an application, applicants must complete twelve (12) semester hours as specified below with a grade of at least C in each of those courses.

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<tr>
<td>BIOL 2301 &amp; BIOL 2101</td>
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<td>4</td>
</tr>
<tr>
<td>BIOL 2302 &amp; BIOL 2102</td>
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<tr>
<td>MATH 1314</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning)</td>
<td></td>
</tr>
<tr>
<td>MATH 1342</td>
<td>Elementary Statistical Methods (Statistics)</td>
<td></td>
</tr>
<tr>
<td>Higher level Math</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSPT 1101</td>
<td>Introduction to Respiratory Care</td>
<td>1</td>
</tr>
</tbody>
</table>

All applicants are required to attend a mandatory information session. The dates and times for the sessions are published on the school's website at http://www.sanjac.edu/career/respiratory-care

Students who apply for admission to the Respiratory Care Program will be ranked based on their scoring on the Respiratory Care Selection Criteria Scoring Rubric. Meeting the minimum requirements for admission does not guarantee admission.

A student currently on academic probation is ineligible to enroll in the respiratory care program.
Applicants to the respiratory care program will be notified by 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.

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.

All students should take the required academic foundation courses in sequence along with professional course work.

**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 Program at 281-998-3612.

Application packet and other important information: www.sanjac.edu/career/respiratory-care

**Plan of Study**

**Central Campus**

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Select one of the following:

- MATH 1314 College Algebra (or higher) 3
- MATH 1332 Contemporary Mathematics (Quantitative Reasoning)
- MATH 1342 Elementary Statistical Methods (Statistics)

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<tbody>
<tr>
<td>RSPT 1340</td>
<td>Advanced Cardiopulmonary Anatomy and Physiology</td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
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<tr>
<td>RSPT 1160</td>
<td>Respiratory Care Clinical</td>
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| Credits | 12 |

**Second Term**

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<tbody>
<tr>
<td>RSPT 1360</td>
<td>Respiratory Care Clinical I</td>
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<tr>
<td>RSPT 1331</td>
<td>Respiratory Care Fundamentals II</td>
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</tr>
<tr>
<td>RSPT 2310</td>
<td>Cardiopulmonary Disease</td>
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</tr>
<tr>
<td>RSPT 2314</td>
<td>Mechanical Ventilation</td>
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</table>

| Credits | 12 |

**Summer Year One Term**

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<tr>
<td>RSPT 2360</td>
<td>Respiratory Care Clinical II</td>
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<tr>
<td>RSPT 2371</td>
<td>Mechanical Ventilation II</td>
<td>3</td>
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<td>RSPT 2217</td>
<td>Respiratory Care Pharmacology</td>
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| Credits | 8 |

**Third Term**

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<td>RSPT 2361</td>
<td>Respiratory Care Clinical III</td>
<td>3</td>
</tr>
<tr>
<td>RSPT 2355</td>
<td>Critical Care Monitoring</td>
<td>3</td>
</tr>
<tr>
<td>RSPT 2353</td>
<td>Neonatal/Pediatric Cardiopulmonary Care Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)</td>
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</tbody>
</table>

| Credits | 12 |

**Fourth Term**

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<td>RSPT 2362</td>
<td>Respiratory Care Clinical IV</td>
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<tr>
<td>RSPT 2130</td>
<td>Respiratory Care Examination Preparation</td>
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</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology</td>
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<tr>
<td>RSPT 2325</td>
<td>Cardiopulmonary Diagnostics</td>
<td>3</td>
</tr>
</tbody>
</table>

| Credits | 10 |

**Total Credits**

66

**Capstone Experience:** RSPT 2325 Cardiopulmonary Diagnostics

**Verification of workplace competencies.**

Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.

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**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:

CoARC
1248 Harwood Rd.
Bedford, Texas 76021-4244
817.283.2835 or visit http://www.coarc.com/

San Jacinto College 2019-2020
Surgical Technology, Associate of Applied Science

Program Information
If you are interested in providing hands-on patient care in a fast-paced hospital environment, a degree in Surgical Technology may be the challenge to kick-start a satisfying medical career. As an integral part of every hospital operating room, surgical technologists are highly valued players with responsibilities that include assisting surgeons, and working with registered nurses, anesthesiologists, and other hospital staff to care for the surgical patient.

The San Jacinto College surgical technology program:

• Offers a curriculum that combines classroom theory with supervised clinical practicum;
• Offers students hands-on operating room experience on how to prepare equipment, surgical supplies and medications, pass instruments to surgeons and assistants, monitor counts, prepare specimens for lab analysis, and apply dressing, as well as operate lights, suction machines, and endoscopy equipment; and
• Trains students for surgical and post-surgical procedures that meet Universal Standards/Occupational Safety and Health Administration (OSHA) guidelines.

Additional Information
This is a selective admission program. Class size is determined by the availability of clinical space, and a limited number of students are admitted into the program bi-annually. Limited enrollment ensures a quality laboratory and clinical experience as needed to become a competent entry-level surgical technologist. The 12-month certificate program accepts new students in August and January. Students seeking an associate degree may complete their additional requirements before or after completing the 12-month certificate program.

A criminal background check and drug testing are mandatory along with immunizations, physical examination, proof of health insurance, and proof of American Heart Association Cardiopulmonary Resuscitation training, Basic Life Support (CPR-BLS).

The Surgical Technology program is accredited by the Commission for Accreditation for Allied Health Education Programs (CAAHEP). Upon receiving either the certificate of technology or the Associate of Applied Science (AAS) degree, the graduate is eligible to take the National Certification exam by the National Board of Surgical Technologists and Surgical Assistants. The state of Texas requires all surgical technologists to be certified. Students earning a certificate of technology may work while completing the AAS degree.

Career Opportunities
Hospitals are the primary employers of surgical technologists.

Private specialty practices such as ophthalmology, neurosurgery, orthopedics, and plastic/reconstructive surgery, also hire surgical technologists.

There has been an increase of Surgical Technologists seeking the Certified First Assistant position. With the AAS and further training, the Licensed Surgical Assistant (LSA) is qualified to work in a specialty position with a surgeon or a group.

Earning Potential
Surgical Technologist median salary: $50,655 per year


For additional information please contact 281-478-3612.

Campus
Central Campus

Links
Application packet and information session details: https://www.sanjac.edu/career/surgical-technology

Information
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 surgical technology program 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)
25400 U. S. Highway 19 North, Suite 158
Clearwater, Florida 33763
Phone: 727-210-2350
www.caahep.org (http://www.caahep.org),
effective until 2024. Upon completion of the program, the student is granted a certificate of technology or associate of applied science
degree, 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 with acceptance being based on grades in the pre-request courses. 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:

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.

1. Be admitted to San Jacinto College. All students must apply Online using the Apply Texas website at www.applytexas.org (http://www.applytexas.org). There is no charge to apply.

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 (admissions transcript evaluation) prior to submitting an application.
   c. Surgical Technology 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 the Records Management.

3. Completion of all of the following prerequisite courses, with a minimum grade of “C,” before admission to the program:

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<td>BIOL 2404</td>
<td>Introduction to Anatomy and Physiology (lecture &amp; lab)</td>
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<td></td>
</tr>
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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 20.

**Program Admission Criteria**

The Surgical Technology program accepts applicants twice a year. Application periods are as follows:

- May 1 through June 1, for fall admission; and
- September 1 through October 20 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 Admissions.

**Surgical Technology**

Students who apply for admission will be selected based on their completion of the prerequisite coursework and their total score on the application rubric, as posted on the San Jacinto College website. 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 Session (https://www.sanjac.edu/sites/default/files/Information%2520Flyer-Spring_Summer%25202019.pdf) 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 reapply. Applicants who are accepted for admission, but do not accept the position or do not complete the enrollment process, must reapply 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; must provide proof of American Heart Association CPR training, Healthcare Provider Basic Life Support; and must submit all documents to Castle Branch, along with a specified fee. A criminal background check and drug screen 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. If the grade of D, W, I, F, or FX is earned, a student must submit a written petition to the Surgical Technology Appeals Committee to return to the program. In subsequent terms, if the student earns a second grade of D, W, I, F, or FX in any Surgical Technology course, even though the student may have repeated the course in which the first grade of D, W, I, F, or FX was earned and received, the student will be dismissed from the Surgical Technology program.

Students are required to purchase uniforms and accessories specified by the Surgical Technology program. Each student is responsible for his/her own transportation to the clinical areas and all required parking fees.

**Plan of Study**

**Central Campus**

3SURT

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites</td>
<td>Select one of the following:</td>
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San Jacinto College 2019-2020
Surgical Technology, Certificate of Technology

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**Career Opportunities**

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**Earning Potential**

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1 Source: texaswages.com, Gulf Coast region, 2017.

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**Campus**

Central Campus

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**Plan of Study**

Central Campus

4SURT

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¹ SCIT 1307 or BIOL 2404, or BIOL 2401 (Lec/Lab) and BIOL 2402 (Lec/Lab), or BIOL 2301/2101 (Lec/Lab) and BIOL 2302/2102 (Lec/Lab).
² HPRS 2301 or BIOL 2420 or BIOL 2320/2120 (Lec/Lab).
PUBLIC SAFETY AND HUMAN/CONSUMER SERVICES

- Cosmetology High School Operator Dual Credit, Certificate of Technology
- Cosmetology Instructor, Associate of Applied Science
- Cosmetology Instructor, Certificate of Technology
- Cosmetology Operator, Associate of Applied Science
- Cosmetology Operator, Certificate of Technology
- Cosmetology, Facial Specialist (Esthetician), Certificate of Technology
- Cosmetology, Nail Technician, Occupational Certificate
- Criminal Justice Core, Occupational Certificate
- Criminal Justice, Associate of Applied Science
- Criminal Justice, Certificate of Technology
- Criminal Justice, Level 2 Certificate of Technology
- Culinary Arts - Chef Training/Restaurant Management, Occupational Certificate
- Culinary Arts - Pastry Chef Specialty, Associate of Applied Science
- Culinary Arts - Pastry Chef Specialty, Certificate of Technology
- Culinary Arts, Associate of Applied Science
- Culinary Arts, Certificate of Technology
- Culinary, Restaurant Management, Associate of Applied Science
- Culinary, Restaurant Management, Certificate of Technology
- Fire Protection, Chief Officer, Enhanced Skills Certificate
- Firefighting, Associate of Applied Science
- Firefighting, Certificate of Technology
- Massage Therapy, Occupational Certificate
- Restaurant Management

Cosmetology High School Operator Dual Credit, Certificate of Technology

Program Information

Helping other people look and feel their best is one of the most fulfilling career paths you can take. A career in cosmetology gives you this kind of satisfaction. There is no better way to enter the field than at San Jacinto College. Our programs give you the training you need to become licensed by the state as a hair designer, facial specialist, nail technician, hair weaving and braiding specialist, eye lash extension specialist, or cosmetology instructor. Look around the city and you will see that there is no shortage of businesses offering these services, and new ones open almost daily. You could work anywhere from neighborhood salons to high-end day spas, or follow your dream to open your own business.

The San Jacinto College cosmetology program:

- Is designed to prepare students with the technical skills and theoretical knowledge required for an entry-level position in the cosmetology operator profession;
- Offers students the opportunity to complete the 1,000 hours of required training to be eligible to take the Texas Department of Licensing and Regulation Cosmetology Operator examination; and
- Prepares students to be hairdressers, hair weavers, salon operators, facial specialists, manicurists, eye lash specialists, and more.

Career Opportunities

Students completing a San Jacinto College cosmetology program may pursue careers as:

- Hairdressers,
- Color Specialists,
- Manicurists,
- Make-Up Artists, and
- Facial Specialists.

Earning Potential

Hairdressers, hairstylists, and cosmetologists median salary: $25,056 per year

For more information, please contact North campus, 281-998-6150, x7108 or South campus, 281-998-6150, x3587.

Campuses

North Campus

South Campus
The cosmetology high school operator dual credit certificate of technology 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.

Admission

For students in this program who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair.

For more information about requirements, visit the Texas Department of Licensing and Regulation (TDLR):

https://www.tdlr.texas.gov/cosmet/cosmet.htm

Plan of Study

North and South campuses

4COSM-OPHS

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Verification of workplace competencies; Eligible for the credentialing exam – Texas Department of Licensing and Regulation Cosmetology Operator Licensure Examination

Cosmetology Instructor, Associate of Applied Science

Program Information

Helping other people look and feel their best is one of the most fulfilling career paths you can take. A life in cosmetology gives you this kind of satisfaction, but have you ever wanted to inspire others? Our program for cosmetology instructors can give you the training you need to become a professional instructor allowing you to prepare for a career in teaching students pursuing careers in cosmetology. The instructor’s program prepares students for job opportunities in high schools, higher education, and private institutions as well rounded instructors.

The San Jacinto College cosmetology instructor program:

- Is designed for licensed cosmetologists, manicurists, or facialists who have acquired salon experience and are looking to teach cosmetology;
- Prepares students for professional positions as cosmetology instructors; and
- Prepares students to be eligible for the state credentialing exam, the Texas Department of Licensing and Regulation Cosmetology Instructor License Examination.

Career Opportunities

Students completing a San Jacinto College cosmetology instructor program will qualify to teach in the cosmetology industry with an emphasis on instructional presentations and clinic management.

Earning Potential

Vocational Education Teachers in Secondary Schools: $54,802 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact North campus, 281-998-6150, x7108 or South campus, 281-998-6150, x3587.

Campuses

North Campus
South Campus

Information

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.

Admission

For students in this program who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair.

For more information about requirements, visit the Texas Department of Licensing and Regulation (TDLR):

https://www.tdlr.texas.gov/cosmet/cosmet.htm

Plan of Study

North and South campuses
3COSM-INST

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| Second Term |                                            |         |
| CSME 2414  | Cosmetology Instructor II                  | 4       |
| CSME 2549  | Cosmetology Instructor III                 | 5       |
| Select one of the following: |        | 3       |
| HRPO 1311  | Human Relations                            |         |
| Free Elective (p. 214) | |         |
| ENGL 1302  | Composition II or Technical and Business Writing | 3     |
| or ENGL 2311  |                                            |         |
| Credits  |                                            | 15      |

| Third Term |                                            |         |
| CSME 2445  | Instructional Theory and Clinic Operation  | 4       |
| CSME 2544  | Cosmetology Instructor IV                  | 5       |
| ITSC 1309  | Integrated Software Applications I or Business Computer Applications | 3      |
| or BCIS 1305 |                                            |         |
| Credits  |                                            | 12      |

| Fourth Term |                                            |         |
| MATH 1332  | Contemporary Mathematics (Quantitative Reasoning) (or higher) or College Algebra | 3       |
| Social and Behavioral Sciences or Government/Political Science or American History | | 3 |
| Approved Electives (p. 214) | | 3 |
| Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts) | | 3 |

Verification of workplace competencies: Eligible for the credentialing exam – Texas Department of Licensing and Regulation Cosmetology Instructor License Examination

Approved Electives

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<td>CSME 1308</td>
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<td>Application of Eyelash Extensions</td>
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<td>CSME 1421</td>
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<td>CSME 1457</td>
<td>Applications of Hair-Weaving and Braiding</td>
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<td>CSME 2431</td>
<td>Principles of Facial and Skin Care Technology III</td>
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Cosmetology Instructor, Certificate of Technology

Program Information

Helping other people look and feel their best is one of the most fulfilling career paths you can take. A life in cosmetology gives you this kind of satisfaction, but have you ever wanted to inspire others? Our program for cosmetology instructors can give you the training you need to become a professional instructor allowing you to prepare for a career in teaching students pursuing careers in cosmetology. The instructor's program prepares students for job opportunities in high schools, higher education, and private institutions as well rounded instructors.

The San Jacinto College cosmetology instructor program:

- Is designed for licensed cosmetologists, manicurists, or facialists who have acquired salon experience and are looking to teach cosmetology;
- Prepares students for professional positions as cosmetology instructors; and
San Jacinto College

Career Opportunities

Students completing a San Jacinto College cosmetology instructor program will qualify to teach in the cosmetology industry with an emphasis on instructional presentations and clinic management.

Earning Potential

Vocational Education Teachers in Secondary Schools: $54,802 per year

Verification of workplace competencies: Eligible for the Texas Cosmetology Commission Instructor Licensure Exam Program

Cosmetology Instructor, Occupational Certificate

Program Information

Helping other people look and feel their best is one of the most fulfilling career paths you can take. A life in cosmetology gives you this kind of satisfaction, but have you ever wanted to inspire others? Our program for cosmetology instructors can give you the training you need to become a professional instructor allowing you to prepare for a career in teaching students pursuing careers in cosmetology. The instructor's program prepares students for job opportunities in high schools, higher education, and private institutions as well rounded instructors.

The San Jacinto College cosmetology instructor program:

• Is designed for licensed cosmetologists, manicurists, or facialists who have acquired salon experience and are looking to teach cosmetology;
• Prepares students for professional positions as cosmetology instructors; and
• Prepares students to be eligible for the state credentialing exam, the Texas Department of Licensing and Regulation Cosmetology Instructor License Examination.

Career Opportunities

Students completing a San Jacinto College cosmetology instructor program will qualify to teach in the cosmetology industry with an emphasis on instructional presentations and clinic management.

Earning Potential

Vocational Education Teachers in Secondary Schools: $54,802 per year

San Jacinto College 2019-2020

Plan of Study

North and South campuses

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Second Term

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Third Term

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Total Credits 27

Verification of workplace competencies: Eligible for the Texas Cosmetology Commission Instructor Licensure Exam Program

Campuses

North Campus

South Campus

Information

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.

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. It is preferred that students have two years of work experience.

Admission

For students in this program who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair.

For more information about requirements, visit the Texas Department of Licensing and Regulation (TDLR):

https://www.tdlr.texas.gov/cosmet/cosmet.htm

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017
Cosmetology Operator, Associate of Applied Science

Program Information
Helping other people look and feel their best is one of the most fulfilling career paths you can take. A career in cosmetology gives you this kind of satisfaction. There is no better way to enter the field than at San Jacinto College. Our programs give you the training you need to become licensed by the state as a hair designer, facial specialist, nail technician, hair weaver and braiding specialist, eye lash extension specialist, or cosmetology instructor. Look around the city and you will see that there is no shortage of businesses offering these services, and new ones open almost daily. You could work anywhere from neighborhood salons to high-end day spas, or follow your dream to open your own business.

The San Jacinto College cosmetology program:
• Is designed to prepare students with the technical skills and theoretical knowledge required for an entry-level position in the cosmetology operator profession;
• Offers students the opportunity to complete the 1,500 hours of required training to be eligible to take the Texas Department of Licensing and Regulation Cosmetology Operator examination; and
• Prepares students to be hairdressers, hair weavers, salon operators, facial specialists, manicurists, eye lash specialists, and more.

Career Opportunities
Students completing a San Jacinto College cosmetology program may pursue careers as:
• Hairdressers
• Color Specialists
• Manicurists
• Make-Up Artists
• Facial Specialists

Earning Potential
Hairdressers, hairstylists, and cosmetologists median salary: $25,056 per year

For more information, please contact North campus, 281-998-6150, x7108 or South campus, 281-998-6150, x3587.

Campuses
North Campus
South Campus

Plan of Study
South campus
6COSM-INST

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Capstone Experience: CSME 2544 Cosmetology Instructor IV

Verification of Workplace Competencies: Eligible for the Credentialing Exam – Texas Department of Licensing and Regulation Cosmetology Instructor License Examination.
**Information**

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.

**Admission**

For students in this program who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair.

For more information about requirements, visit the Texas Department of Licensing and Regulation (TDLR):

https://www.tdlr.texas.gov/cosmet/cosmet.htm

**Plan of Study**

**North and South campuses**

3COSM-OP

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**Total Credits**: 60

Verification of Workplace Competencies; Eligible for the credentialing exam – Texas Department of Licensing and Regulation Cosmetology Operator Examination

**Cosmetology Operator, Certificate of Technology**

**Speech**

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**Program Information**

Helping other people look and feel their best is one of the most fulfilling career paths you can take. A career in cosmetology gives you this kind of satisfaction. There is no better way to enter the field than at San Jacinto College. Our programs give you the training you need to become licensed by the state as a hair designer, facial specialist, nail technician, hair weaving and braiding specialist, eye lash extension specialist, or cosmetology instructor. Look around the city and you will see that there is no shortage of businesses offering these services, and new ones open almost daily. You could work anywhere from neighborhood salons to high-end day spas, or follow your dream to open your own business.

The San Jacinto College cosmetology program:

- Is designed to prepare students with the technical skills and theoretical knowledge required for an entry-level position in the cosmetology operator profession;
- Offers students the opportunity to complete the 1,500 hours of required training to be eligible to take the Texas Department of Licensing and Regulation Cosmetology Operator examination; and
- Prepares students to be hairdressers, hair weavers, salon operators, facial specialists, manicurists, eye lash specialists, and more.

**Career Opportunities**

Students completing a San Jacinto College cosmetology program may pursue careers as:

- Hairdressers
- Color Specialists
- Manicurists
- Make-Up Artists
- Facial Specialists
Earning Potential

Hairdressers, hairstylists, and cosmetologists median salary: $25,056 per year.

For more information, please contact North Campus, 281-998-6150 ext. 7108 or South Campus, 281-998-6150 ext. 3587.

Campuses
North Campus
South Campus

Information

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.

Admission

For students in this program who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair.

For more information about requirements, visit the Texas Department of Licensing and Regulation (TDLR):

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Plan of Study

North and South campuses
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<tr>
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<td>Introduction to Haircutting and Related Theory</td>
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Verification of Workplace Competencies: Eligible for the credentialing exam – Texas Department of Licensing and Regulation Cosmetology Operator Examination

Cosmetology, Facial Specialist (Esthetician), Certificate of Technology

Program Information

The San Jacinto College facial/esthetic specialist certificate program provides students with the skills and knowledge necessary for an entry-level position in the facial/esthetics profession. This high-demand career is fueled by individuals who want to help others improve the health of their skin through better skin-care practices.

Upon successful completion of 750 classroom and lab training hours, the student is eligible to take the written and practical exams regulated by the Texas Department of Licensing and Regulations in Facial/Esthetics.

Program topics include:

- History of esthetics,
- Infection control practices,
- Anatomy and physiology of the skin,
- Disorders and diseases of the skin,
- In-depth skin analysis,
- Skin care ingredients,
- Facial massage techniques,
- Use of facial machines,
- Hair removal methods,
- Makeup techniques,
- Retailing services and products, and
- New technology.

Career Opportunities

Students who earn the facial specialist certificate may pursue careers in:
Earning Potential

Skincare Specialist median salary - $30,080


For more information, please contact North campus, 281-998-6150, x7108; or South campus, 281-998-6150, x3587.

Campuses

North Campus
South Campus

Information

The facial specialist (esthetician) 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.

Admission

For students in this program who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair.

For more information about requirements, visit the Texas Department of Licensing and Regulation (TDLR):

https://www.tdlr.texas.gov/cosmet/cosmet.htm

Plan of Study

North and South campuses

<table>
<thead>
<tr>
<th>Course</th>
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Total Credits: 24

Verification of workplace competencies: Eligible for the credentialing exam – Texas Department of Licensing and Regulation Esthetician/Facial Specialist Licensure Examination

Cosmetology, Nail Technician, Occupational Certificate

Program Information

Helping other people look and feel their best is one of the most fulfilling career paths you can take. A life in cosmetology gives you this kind of satisfaction. There is no better way to enter the field than at San Jacinto College. Look around the city and you will see that there is no shortage of businesses offering these services, and there are new ones opening almost daily. You could work anywhere, from neighborhood salons to high-end day spas, or follow your dream to open your own business.

The San Jacinto College Cosmetology Specialty Programs include:

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 spa. 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, including acrylic, fiberglass, and gel nail extensions.

Career Opportunities

Students completing a San Jacinto Nail Technician Specialty program may pursue careers as:

- Manicurists,
- Nail Technicians,
- Educators,
- Platform Artists, and
- Industry/Distribution Representatives.
Earning Potential

Skin Care Specialists median salary: $19,058 per year

Hairdressers, Hairstylists, and Cosmetologists median salary: $25,056 per year

Manicurists and Pedicurists median salary: $20,699 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact South campus, 281-998-6150, x3587.

Campus
South Campus

Information
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.

Admission
For students in this program who may have a criminal background, please be advised that your criminal history could keep you from being licensed by the state of Texas. If you have a question about your background and licensure, please speak with your faculty member or Department Chair.

For more information about requirements, visit the Texas Department of Licensing and Regulation (TDLR):
https://www.tdlr.texas.gov/cosmet/cosmet.htm

Plan of Study
South campus
6COSM-NAI

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Verification of Workplace Competencies: Eligible for the Credentialing Exam – Texas Department of Licensing and Regulation Manicurist License Examination

Criminal Justice Core, Occupational Certificate

Program Information
Do you desire to make the world a better and safer place? Do you believe in justice and protection? If so, studying criminal justice at San Jacinto College is an excellent place to begin.

Our program prepares you for a variety of exciting and meaningful careers—law enforcement, emergency management, homeland security, corrections, probation, parole, and even social work. We offer a degree plan that prepares you for a career in criminal justice—one of the most popular, fascinating, and fastest growing fields. Choose this path, and you will be serving society with a chance to make the world a better place.

The San Jacinto College criminal justice program:
• Offers students a career that gives back to their community. When you study criminal justice at San Jacinto College, you are supporting safety as you train to serve as a professional in the criminal justice field;
• Prepares students to specialize in studies for their long-term goals that can lead to rewarding careers in social work, the FBI, pre-law, homeland security, and emergency management; and
• Is best for those individuals who want to pursue a challenging career in a criminal justice profession. Criminal justice is today’s new liberal arts degree.

Additional Information
The Associate of Applied Science (AAS) degree offers the educational foundation needed in policing, social work, corrections, probation and parole. In addition, there are certificates that focus on educational direction and are centered around professional fields.

Upon proof of completion of a basic academy by having successfully passed the state’s licensing exam, San Jacinto College will articulate 18.0 WECM semester hours upon completion of six hours of criminal justice courses in residency at San Jacinto College for working police officers based upon proof of having successfully passed the state’s licensing exam. San Jacinto College exempts licensed Texas peace officers, who are employed as full-time officers, from tuition on criminal justice courses.

Career Opportunities
• Police Officers
• Parole Officers
• Probation Officers
• Adult Protective Service Officers
• Child Protective Service Officers
• Social Workers
• Pre-law
• Emergency Management
• Homeland Security
• FBI

Earning Potential

Brazoria County Sheriff's Office dispatcher: $16.06 per hour¹

Brazoria County Sheriff's Office detention deputy: $18.05 per hour¹

Harris County Sheriff's Office detention officer: $35,071 to $50,132 per year²

Pasadena Police Department patrol officer starting salary: $55,680 per year³

Rosenberg Police Department police officer starting salary: $24.55 - $29.45 per hour⁴

Webster Police Department police officer cadet starting salary: $22.08 per hour ($45,926 per year)⁵

Webster Police Department police officer starting salary: $24.28 per hour ($50,519 per year) and $24.89 per hour ($51,781 per year) after six months probationary period.⁵

¹ Source: www.brazoria-county.com (http://www.brazoria-county.com), 2017
³ Source: www.ppdcareer.com (http://www.ppdcareer.com), 2017
⁴ Source: www.rosenbergpolice.com (http://www.rosenbergpolice.com), 2017
⁵ Source: www.cityofwebster.com (http://www.cityofwebster.com), 2017

For more information, please contact Central campus, 281-476-1873; or North campus, 281-998-6150, x7435.

Campuses
Central Campus
North Campus

Information
Criminal justice is an interdisciplinary program with enough flexibility to permit students to pursue diverse interest within the system. For example, an Associate of Arts (AA) allows students interested in social work probation, parole, law, or law enforcement to have a foundational understanding before transfer to the university for a Bachelor of Arts (BA) degree. Students directed toward probation, parole or corrections work are advised to select courses from the transfer core. Students seeking an Associate of Applied Science (AAS) in Criminal Justice have the opportunity to earn three certificates on the pathway to that degree. The AAS transfers to a Bachelor of Applied Arts and Science (BAAS) degree at many universities.

Occupational Certificate

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 (TCLOE) licensing exam after 1983;
• Successfully completed six (6) semester hours of criminal justice at San Jacinto College; and
• 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.

Admission
No admission requirements.

Job entry requirements:
Some occupations in the criminal justice field require applicants to pass a background investigation, psychological exam, drug test, and physical examination.

Those entering law enforcement must pass all of the above as well as have no Class A or above convictions or no Class B convictions in the past 10 years.

Plan of Study
Central and North Campuses
6CRIJ-CORE

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<td>Introduction to Criminal Justice</td>
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<tr>
<td>CRIJ 1306/ CJSA 1313</td>
<td>Court Systems and Practices</td>
<td>3</td>
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<tr>
<td>CRIJ 1310/ CJSA 1327</td>
<td>Fundamentals of Criminal Law</td>
<td>3</td>
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<td>CRIJ 2328/ CJSA 1359</td>
<td>Police Systems and Practices</td>
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Capstone Experience: CRIJ 1306 Court Systems and Practices or CJSA 1313 Court Systems and Practices
Criminal Justice, Associate of Applied Science

Program Information
Do you desire to make the world a better and safer place? Do you believe in justice and protection? If so, studying criminal justice at San Jacinto College is an excellent place to begin.

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The San Jacinto College criminal justice program:
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• Is best for those individuals who want to pursue a challenging career in a criminal justice profession. Criminal justice is today’s new liberal arts degree.

Additional Information
The Associate of Applied Science (AAS) degree offers the educational foundation needed in policing, social work, corrections, probation and parole. In addition, there are certificates that focus on educational direction and are centered around professional fields.

Upon proof of completion of a basic academy by having successfully passed the state’s licensing exam, San Jacinto College will articulate 18.0 WECM semester hours upon completion of six hours of criminal justice courses in residency at San Jacinto College for working police officers based upon proof of having successfully passed the state’s licensing exam. San Jacinto College exempts licensed Texas peace officers, who are employed as full-time officers, from tuition on criminal justice courses.

Career Opportunities
• Police Officers
• Parole Officers
• Probation Officers
• Adult Protective Service Officers
• Child Protective Service Officers
• Social Workers
• Pre-law
• Emergency Management
• Homeland Security
• FBI

Earning Potential
Brazoria County Sheriff’s Office dispatcher: $16.06 per hour
Brazoria County Sheriff’s Office detention deputy: $18.05 per hour
Harris County detention officer: $35,071 to $50,132 per year
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1 Source: www.brazoria-county.com, 2017
2 Source: www.hcsojobs.com/detentionofficer.aspx, 2017
3 Source: www.ppdcareer.com, 2017
4 Source: www.rosenbergpolice.com, 2017
5 Source: www.cityofwebster.com, 2017

For more information, please contact Central campus, 281-476-1873; or North campus, 281-998-6150, ext 7435.

Campuses
Central Campus
North Campus

Information
Criminal justice is an interdisciplinary program with enough flexibility to permit students to pursue diverse interest within the system. For example, an Associate of Arts (AA) allows students interested in social work probation, parole, law, or law enforcement to have a foundational understanding before transfer to the university for a Bachelor of Arts (BA) degree. Students directed toward probation, parole or corrections work are advised to select courses from the transfer core. Students seeking an Associate of Applied Science (AAS) in Criminal Justice have the opportunity to earn three certificates on the pathway to that degree. The AAS transfers to a Bachelor of Applied Arts and Science (BAAS) degree at many universities.
Associate of Arts Degree University Transfer Plan
Central and North Campuses

Students pursuing a four-year Bachelor of Arts (BA) degree should enroll in the Associate of Arts (AA) degree plan for a maximum of transferable credit. The AA is a 60-credit hour program, which may include the following courses in the major:

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<td>CRIJ 1306</td>
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<td>CRIJ 2313</td>
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</tr>
<tr>
<td>CRIJ 2328</td>
<td>Police Systems and Practices</td>
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</table>

All students considering transfer should consult with a counselor regarding the specific requirements of various universities for this major.

Admission
No admission requirements.

Job entry requirements:

Some occupations in the criminal justice field require applicants to pass a background investigation, psychological exam, drug test, and physical examination.

Those entering law enforcement must pass all of the above as well as have no Class A or above convictions or no Class B convictions in the past 10 years.

Plan of Study
Central and North Campuses

3CRIJ

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<td>CRIJ 1312</td>
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<td>CJLE 1327</td>
<td>Interviewing and Report Writing for Criminal Justice</td>
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<td>CRIJ 2323/</td>
<td>Legal Aspects of Law Enforcement</td>
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<tr>
<td>CRIJ 2314/</td>
<td>Criminal Investigation</td>
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CJSA 1348 | Ethics in Criminal Justice | 3

Credits | 15 |

Second Term | 15 |

Third Term | 15 |

Fourth Term | 15 |

Capstone: CRIJ 2323 Legal Aspects of Law Enforcement or CJSA 2300

Legal Aspects of Law Enforcement

Criminal Justice, Certificate of Technology

Program Information

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1 Source: www.brazoria-county.com (http://www.brazoria-county.com), 2017
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5 Source: www.cityofwebster.com (http://www.cityofwebster.com), 2017

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Campuses

Central Campus
North Campus

Information

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Admission

No admission requirements.

Job entry requirements:

Some occupations in the criminal justice field require applicants to pass a background investigation, psychological exam, drug test, and physical examination.

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Plan of Study

Central and North Campuses

4CRIJ

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<tr>
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<td>CRIJ 2328/ CJSA 1359</td>
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<td>Second Term</td>
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<td>CRIJ 1307/ CJJA 1312</td>
<td>Crime in America</td>
<td>3</td>
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San Jacinto College

Program Information

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• Is best for those individuals who want to pursue a challenging career in a criminal justice profession. Criminal justice is today’s new liberal arts degree.

Additional Information

The Associate of Applied Science (AAS) degree offers the educational foundation needed in policing, social work, corrections, probation and parole. In addition, there are certificates that focus on educational direction and are centered around professional fields.

Upon proof of completion of a basic academy by having successfully passed the state’s licensing exam, San Jacinto College will articulate 18.0 WECM semester hours upon completion of six hours of criminal justice courses in residency at San Jacinto College for working police officers based upon proof of having successfully passed the state’s licensing exam. San Jacinto College exempts licensed Texas peace officers, who are employed as full-time officers, from tuition on criminal justice courses.

Career Opportunities

• Police Officers
• Parole Officers
• Probation Officers
• Adult Protective Service Officers
• Child Protective Service Officers
• Social Workers
• Pre-law
• Emergency Management
• Homeland Security
• FBI

Earning Potential

Brazoria County Sheriff’s Office dispatcher: $16.06 per hour ¹
Brazoria County Sheriff’s Office detention deputy: $18.05 per hour ¹
Harris County detention officer: $35,071 to $50,132 per year ²
Pasadena Police Department patrol officer starting salary: $55,680 per year ³
Rosenberg Police Department police officer starting salary: $24.55 - $29.45 per hour ⁴
Webster Police Department police officer cadet starting salary: $22.08 per hour ($45,926 per year) ⁵
Webster Police Department police officer starting salary: $24.28 per hour ($50,519 per year) and $24.89 per hour ($51,781 per year) after six months probationary period. ⁵

¹ Source: www.brazoria-county.com (http://www.brazoria-county.com), 2017
³ Source: www.ppdcareer.com (http://www.ppdcareer.com), 2017
⁴ Source: www.rosenbergpolice.com (http://www.rosenbergpolice.com), 2017
⁵ Source: www.cityofwebster.com (http://www.cityofwebster.com), 2017

For more information, please contact Central campus, 281-476-1873; or North campus, 281-998-6150, x7435.

Campuses

Central Campus
North Campus
Information

Criminal justice is an interdisciplinary program with enough flexibility to permit students to pursue diverse interest within the system. For example, an Associate of Arts (AA) allows students interested in social work probation, parole, law, or law enforcement to have a foundational understanding before transfer to the university for a Bachelor of Arts (BA) degree. Students directed toward probation, parole or corrections work are advised to select courses from the transfer core. Students seeking an Associate of Applied Science (AAS) in Criminal Justice have the opportunity to earn three certificates on the pathway to that degree. The AAS transfers to a Bachelor of Applied Arts and Science (BAAS) degree at many universities.

Admission

No admission requirements.

Job entry requirements:

Some occupations in the criminal justice field require applicants to pass a background investigation, psychological exam, drug test, and physical examination.

Those entering law enforcement must pass all of the above as well as have no Class A or above convictions or no Class B convictions in the past 10 years.

Plan of Study Grid

Central and North Campuses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Term</td>
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<tr>
<td>CRIJ 1301/</td>
<td>Introduction to Criminal Justice</td>
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<tr>
<td>CJSA 1322</td>
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<td>CRIJ 1306/</td>
<td>Court Systems and Practices</td>
<td>3</td>
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<td>CJSA 1313</td>
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<td></td>
</tr>
<tr>
<td>CRIJ 1310/</td>
<td>Fundamentals of Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CJSA 1327</td>
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<tr>
<td>CRIJ 2313/</td>
<td>Correctional Systems and Practices</td>
<td>3</td>
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<tr>
<td>CJCR 1307</td>
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<td>CRIJ 2328/</td>
<td>Police Systems and Practices</td>
<td>3</td>
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<td>CJSA 1359</td>
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<td>CRIJ 1307/</td>
<td>Crime in America</td>
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<td>CJSA 1312</td>
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<td>CJJE 1327</td>
<td>Interviewing and Report Writing for</td>
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<td>Criminal Justice Professions</td>
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<td>CRIJ 2323/</td>
<td>Legal Aspects of Law Enforcement</td>
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<tr>
<td>CJSA 2300</td>
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<td>CRIJ 2314/</td>
<td>Criminal Investigation</td>
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<td>CJSA 1348</td>
<td>Ethics in Criminal Justice</td>
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<td>BCIS 1305</td>
<td>Business Computer Applications</td>
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<td>CRIJ 1313/</td>
<td>Juvenile Justice System</td>
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<td>CRIA 1361</td>
<td>Use of Force</td>
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<td>CRIA 2301</td>
<td>Community Resources in Corrections</td>
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<tr>
<td>or CJLE 1333</td>
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Capstone Experience: CRIJ 2323 Legal Aspects of Law Enforcement or CJSA 2300 Legal Aspects of Law Enforcement

Culinary Arts - Chef Training/Restaurant Management, Occupational Certificate

Program Information

The Culinary Arts program provides basic education and training for cooks and apprentice chefs. Sequential courses provide for development of technical food preparation and service skills, understanding of the principles of food and beverage composition, experience in the use and maintenance of professional food service equipment and basic development of supervisory skills.

The San Jacinto College Culinary Arts - Chef Training/Restaurant Management, Occupational Certificate:

- Provides training for supervisory positions in commercial food service; and
- Is structured to cover the various operations of restaurants, hotel food service, cafeterias, coffee shops, catering, and other areas of food service specialty.

Accreditation by American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC) assures that a program is meeting at least a minimum of standards and competencies set for faculty, curriculum and student services.

Career Opportunities

Students who obtain a certificate or degree in restaurant management pursue careers as managers in:

- Hotels,
- Restaurants,
- Private clubs,
- Cruise lines,
• Country clubs, and
• Sports venues.

**Earning Potential**

Food Service Manager median salary: $58,759 per year\(^1\)

\(^1\) Source: texaswages.com (http://texaswages.com) Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1501, x1353; or North campus, 281-998-6150, x7150.

**Campuses**

Central Campus
North Campus

**Information**

The Culinary Arts program provides basic education and training for cooks and apprentice chefs. Sequential courses provide for development of technical food preparation and service skills, understanding of the principles of food and beverage composition, experience in the use and maintenance of professional food service equipment, and basic development of supervisory skills.

**Program of Study**

**Central Campus**

6CULA-CTRM

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<td>2</td>
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<tr>
<td>CHEF 1401</td>
<td>Basic Food Preparation</td>
<td>4</td>
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<tr>
<td>PSTR 1301</td>
<td>Fundamentals of Baking</td>
<td>3</td>
</tr>
<tr>
<td>IFWA 1318 or HECO 1322</td>
<td>Nutrition for the Food Service Professional or Nutrition and Diet Therapy</td>
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<tr>
<td>RSTO 1313</td>
<td>Hospitality Supervision</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>15</strong></td>
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</tbody>
</table>

**Capstone Experience:** RSTO 1313 Hospitality Supervision

**San Jacinto College 2019-2020**

**Culinary Arts - Pastry Chef Specialty, Associate of Applied Science**

**Program Information**

Do you love food? Do you enjoy baking? Have a taste for a sweet life in a fast-paced, high-energy career? Dream of being the next celebrity chef? If so, San Jacinto College can help make your dreams come true! Our pastry chef program allows you to work within the industry while you build your education. If your ambitions are more specific, you can also choose to specialize as an assistant cook, baker or baker’s helper, or in basic cooking or specialty foods.

The San Jacinto College pastry chef program:

- Is a blend of lectures, labs, field trips, guest lecture presentations, networking opportunities, job placement, and a variety of skill sets taught by our state and nationally recognized chefs and professors;
- Places emphasis on fundamental and advanced culinary arts techniques and hands-on, real world learning through working with our program director, faculty, managers, chefs, and cooks to operate a full-service catering operation, the San Jac Gator Café and Grill, a gourmet bakery, and a fine dining restaurant; and
- Offers field trips to world-famous culinary destinations including Italy, Disney World, New Orleans, Detroit, and other local culinary events, food shows, and conventions

Accreditation by American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC) assures that a program is meeting at least a minimum of standards and competencies set for faculty, curriculum, and student services.

**Additional Information**

San Jacinto College offers scholarship opportunities, financial aid, a culinary club, and participation in a variety of culinary competitions.

**Career Opportunities**

- Cake Decorator
- Owner/Operator Bakery
- Bed and Breakfast Operator
- Pastry Chef/Baker
- Executive Pastry Chef
- Pastry Sous Chef
- Cruise Line Pastry Chef

**Earning Potential**

Baker median salary: $24,501\(^1\)

\(^1\) Source: texaswages.com (http://texaswages.com) Gulf Coast region, 2017

For more information, please contact North campus, 281-998-6150, x7150.
principles of food and beverage composition, experience in the use and maintenance of professional food service equipment, and basic development of supervisory skills.

**Associate of Applied Science Degree**

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.

**Plan of Study**

**North Campus**

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
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<td>CHEF 1205</td>
<td>Sanitation and Safety</td>
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<td>Hospitality Supervision</td>
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<td>PSTR 1306</td>
<td>Cake Decorating I</td>
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<td>PSTR 1301</td>
<td>Fundamentals of Baking</td>
<td>3</td>
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<tr>
<td>PSTR 1342</td>
<td>Quantity Bakeshop Production</td>
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<tr>
<td><strong>Credits</strong></td>
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<tr>
<td><strong>Second Term</strong></td>
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<tr>
<td>PSTR 2301</td>
<td>Chocolates and Confections</td>
<td>3</td>
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<tr>
<td>PSTR 2307</td>
<td>Cake Decorating II</td>
<td>3</td>
</tr>
<tr>
<td>RSTO 2301</td>
<td>Principles of Food and Beverage Control</td>
<td>3</td>
</tr>
<tr>
<td>PSTR 2431</td>
<td>Advanced Pastry Shop</td>
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<td>PSTR 2365</td>
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<td>CHEF 1310</td>
<td>Garde Manger</td>
<td>3</td>
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<td>PSTR 1343</td>
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<td><strong>Credits</strong></td>
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<tr>
<td><strong>Third Term</strong></td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1321</td>
<td>Business and Professional Speech</td>
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<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher) or College Algebra</td>
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<td>Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)</td>
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<tr>
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<td>Social and Behavioral Sciences or Government/Political Science or American History</td>
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<tr>
<td>MRKG 1311</td>
<td>Principles of Marketing</td>
<td>3</td>
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</table>

**Capstone Experience:** PSTR 2365 Practicum - Baking and Pastry

**Culinary Arts - Pastry Chef Specialty, Certificate of Technology**

**Program Information**

Do you love food? Do you enjoy baking? Have a taste for a sweet life in a fast-paced, high-energy career? Dream of being the next celebrity chef? If so, San Jacinto College can help make your dreams come true! Our pastry chef program allows you to work within the industry while you build your education. If your ambitions are more specific, you can also choose to specialize as an assistant cook, baker or baker's helper, or in basic cooking or specialty foods.

The San Jacinto College pastry chef program:

- Is a blend of lectures, labs, field trips, guest lecture presentations, networking opportunities, job placement, and a variety of skill sets taught by our state and nationally recognized chefs and professors;
- Places emphasis on fundamental and advanced culinary arts techniques and hands-on, real world learning through working with our program director, faculty, managers, chefs, and cooks to operate a full-service catering operation, the San Jac Gator Café and Grill, a gourmet bakery, and a fine dining restaurant; and
- Offers field trips to world-famous culinary destinations including Italy, Disney World, New Orleans, Detroit, and other local culinary events, food shows, and conventions.

Accreditation by American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC) assures that a program is meeting at least a minimum of standards and competencies set for faculty, curriculum, and student services.

**Additional Information**

San Jacinto College offers scholarship opportunities, financial aid, a culinary club, and participation in a variety of culinary competitions.

**Career Opportunities**

- Cake Decorator
- Owner/Operator Bakery
- Bed and Breakfast Operator
- Pastry Chef/Baker
• Executive Pastry Chef
• Pastry Sous Chef
• Cruise Line Pastry Chef

Earning Potential

Baker median salary: $24,501

Source: texaswages.com (http://texaswages.com) Gulf Coast region, 2017

For more information, please contact North campus, 281-998-6150, x7150.

Campuses

North Campus

Information

The Culinary Arts program provides basic education and training for cooks and apprentice chefs. Sequential courses provide for development of technical food preparation and service skills, understanding of the principles of food and beverage composition, experience in the use and maintenance of professional food service equipment, and basic development of supervisory skills.

Certificate of Technology

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 American Culinary Federation (ACF) certified and is currently the only pastry chef program with this certification at the community college level in the greater Houston area. 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.

Program of Study

North Campus

4CULA-PC

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<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<td>First Term</td>
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<tr>
<td>CHEF 1205</td>
<td>Sanitation and Safety</td>
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<td>RSTO 1313</td>
<td>Hospitality Supervision</td>
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<td>PSTR 1306</td>
<td>Cake Decorating I</td>
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<td>PSTR 1301</td>
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<tr>
<td>PSTR 1342</td>
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<td></td>
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<td>Second Term</td>
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<tr>
<td>PSTR 2301</td>
<td>Chocolates and Confections</td>
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<td>PSTR 2307</td>
<td>Cake Decorating II</td>
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<td>RSTO 2301</td>
<td>Principles of Food and Beverage Control</td>
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</tr>
<tr>
<td>PSTR 2431</td>
<td>Advanced Pastry Shop</td>
<td>4</td>
</tr>
</tbody>
</table>

Program Information

Do you love food? Do you enjoy cooking? Do you have a taste for a fast-paced, high-energy career in the kitchen? Do you dream of being the next celebrity chef? If so, San Jacinto College can help your dreams come true! Our program allows you to work within the industry while you build your education. If your ambitions are more specific, you can also choose to specialize as an assistant cook, baker or baker’s helper, or in basic cooking or specialty foods.

The San Jacinto College Culinary Arts program:
• Provides basic education and training for cooks and apprentice chefs; and
• Places emphasis on the development of technical food preparation and service skills, understanding of the principles of food composition, experience in the use of maintenance of professional food service equipment, and basic supervisory skills.

Accreditation by American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC) assures that a program is meeting at least a minimum of standards and competencies set for faculty, curriculum, and student services.

Career Opportunities

Our culinary arts program boasts a 100 percent job placement rate for students who want local or national employment in:
• Hotels,
• Restaurants, and
• Private clubs.

Earning Potential
Chef and Head Cook median salary: $41,531 per year


For more information, please contact Central campus, 281-476-1501, x1353; or North campus, 281-998-6150, x7150.

Campuses
Central Campus
North Campus

Information
The Culinary Arts program provides basic education and training for cooks and apprentice chefs. Sequential courses provide for development of technical food preparation and service skills, understanding of the principles of food and beverage composition, experience in the use and maintenance of professional food service equipment, and basic development of supervisory skills.

Associate of Applied Science Degree
The culinary arts program provides basic education and training for student chefs. Culinary courses teach development of technical food preparation and service skills. Student chefs also learn principles of food and beverage composition, experience use and maintenance of commercial restaurant equipment and develop basic supervisory skills.

The culinary arts program is American Culinary Federation (ACF) certified, and is currently the only culinary arts program with this certification at the community college level in the greater Houston area. 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.

Plan of Study
Central and North Campuses
3CULA

Course | Title | Credits
--- | --- | ---
First Term | Credits | 16
CHEF 1205 | Sanitation and Safety | 2
CHEF 1401 | Basic Food Preparation | 4
PSTR 1301 | Fundamentals of Baking | 3
IFWA 2446 | Quantity Procedures | 4
MATH 1332 or MATH 1314 | Contemporary Mathematics (Quantitative Reasoning) (or higher) or College Algebra | 3

Second Term | Credits | 15
RSTO 1313 | Hospitality Supervision | 3
CHEF 1314 | A La Carte Cooking | 3
CHEF 1445 | International Cuisine | 4
CHEF 2302 | Saucier | 3

ENGL 1301 | Composition I | 3

Third Term | Credits | 16
IFWA 1318 | Nutrition for the Food Service Professional | 3
CHEF 1310 or IFWA 1319 | Garde Manger or Meat Identifying and Processing | 3
RSTO 2301 | Principles of Food and Beverage Control | 3
BCIS 1305 | Business Computer Applications | 3
Speech | 3

Credits | 13

Fourth Term | Credits | 15
RSTO 2431 | Food Service Management | 4
CHEF 2365 | Practicum (or Field Experience) - Culinary Arts/Chef Training | 3
Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts) | 3
Social and Behavioral Sciences or Government/Political Science or American History | 3

Credits | 13

Total Credits | 60

Capstone Experience: CHEF 2365 Practicum (or Field Experience) - Culinary Arts/Chef Training

Culinary Arts, Certificate of Technology

Program Information
Do you love food? Do you enjoy cooking? Do you have a taste for a fast-paced, high-energy career in the kitchen? Do you dream of being the next celebrity chef? If so, San Jacinto College can help your dreams come true! Our program allows you to work within the industry while you build your education. If your ambitions are more specific, you can also choose to specialize as an assistant cook, baker or baker’s helper, or in basic cooking or specialty foods.

The San Jacinto College Culinary Arts program:
• Provides basic education and training for cooks and apprentice chefs; and
• Places emphasis on the development of technical food preparation and service skills, understanding of the principles of food composition, experience in the use and maintenance of professional food service equipment, and basic supervisory skills.

Accreditation by American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC) assures that a program is meeting
at least a minimum of standards and competencies set for faculty, curriculum, and student services.

Career Opportunities
Our culinary arts program boasts a 100 percent job placement rate for students who want local or national employment in:

- Hotels,
- Restaurants, and
- Private clubs.

Earning Potential
Chef and Head Cook median salary: $41,531 per year


For more information, please contact Central campus, 281-476-1501, x1353; or North campus, 281-998-6150, x7150.

Campuses
Central Campus
North Campus

Information
The Culinary Arts program provides basic education and training for cooks and apprentice chefs. Sequential courses provide for development of technical food preparation and service skills, understanding of the principles of food and beverage composition, experience in the use and maintenance of professional food service equipment, and basic development of supervisory skills.

Certificate of Technology
The culinary arts program is ACF (American Culinary Federation) certified, and is currently the only culinary arts program with this certification at the community college level in the greater Houston area. 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.

Plan of Study Grid
Central and North Campus
4CULA

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<tr>
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<td>IFWA 2446</td>
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<td>CHEF 1314</td>
<td>A La Carte Cooking</td>
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<td>CHEF 1445</td>
<td>International Cuisine</td>
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<tr>
<td>RSTO 2301</td>
<td>Principles of Food and Beverage Control</td>
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</table>

CHEF 2302   | Saucier                            | 3       |

Third Term

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<thead>
<tr>
<th>Course</th>
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<td>3</td>
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<tr>
<td>RSTO 2431</td>
<td>Food Service Management</td>
<td>4</td>
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<tr>
<td>CHEF 1310 or IFWA 1319</td>
<td>Garde Manger or Meat Identifying and Processing</td>
<td>3</td>
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<tr>
<td>CHEF 2365</td>
<td>Practicum (or Field Experience) - Culinary Arts/Chef Training</td>
<td>3</td>
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<td><strong>Credits</strong></td>
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<td><strong>Total Credits</strong></td>
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<td><strong>42</strong></td>
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</table>

Capstone Experience: CHEF 2365 Practicum (or Field Experience) - Culinary Arts/Chef Training

Culinary, Restaurant Management, Associate of Applied Science

Program Information
The Culinary Arts program provides basic education and training for cooks and apprentice chefs. Sequential courses provide for development of technical food preparation and service skills, understanding of the principles of food and beverage composition, experience in the use and maintenance of professional food service equipment and basic development of supervisory skills.

The San Jacinto College Culinary Arts - Chef Training/Restaurant Management, Occupational Certificate:

- Provides training for supervisory positions in commercial food service; and
- Is structured to cover the various operations of restaurants, hotel food service, cafeterias, coffee shops, catering, and other areas of food service specialty.

Accreditation by American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC) assures that a program is meeting at least a minimum of standards and competencies set for faculty, curriculum and student services.

Career Opportunities
Students who obtain a certificate or degree in restaurant management pursue careers as managers in:

- Hotels,
- Restaurants,
- Private clubs,
• Cruise lines,
• Country clubs, and
• Sports venues.

Earning Potential
Food Service Manager median salary: $58,759 per year1

1 Source: texaswages.com (http://texaswages.com) Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1501, x1353; or North campus, 281-998-6150, x7150.

Campuses
Central Campus
North Campus

Information
The Culinary Arts program provides basic education and training for cooks and apprentice chefs. Sequential courses provide for development of technical food preparation and service skills, understanding of the principles of food and beverage composition, experience in the use and maintenance of professional food service equipment, and basic development of supervisory skills.

Associate of Applied Science Degree
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 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.

Program of Study
Central Campus
3CULA-RSTR

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>CHEF 1205</td>
<td>Sanitation and Safety</td>
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<td>CHEF 1401</td>
<td>Basic Food Preparation</td>
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<td>PSTR 1301</td>
<td>Fundamentals of Baking</td>
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<td>Nutrition for the Food Service Professional</td>
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<td>or HECO 1322</td>
<td>or Nutrition and Diet Therapy</td>
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<td>ENGL 1301</td>
<td>Composition I</td>
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<td>RSTO 1313</td>
<td>Hospitality Supervision</td>
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<tr>
<td>CHEF 2302</td>
<td>Saucier</td>
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RSTO 2301 Principles of Food and Beverage Control 3
CHEF 1402 Principles of Healthy Cuisine 4
Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts) 3

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<td>HAMG 1319 Computers in Hospitality 3</td>
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<td>RSTO 1325 Purchasing for Hospitality Operations 3</td>
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<tr>
<td>RSTO 2365 Practicum (or Field Experience) - Restaurant, Culinary, and Catering Management/Manager 3</td>
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<td>ACNT 1303 Introduction to Accounting I 3</td>
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<td>MATH 1332 or MATH 1314 Contemporary Mathematics (Quantitative Reasoning) (or higher) or College Algebra 3</td>
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<tr>
<td>Total Credits</td>
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</table>

Capstone Experience: RSTO 2365 Practicum (or Field Experience) - Restaurant, Culinary, and Catering Management/Manager

* College Preparatory courses (those courses that have numbers beginning with 0) do not apply toward the Associate of Applied Science (AAS) degree.

** Students must be Texas Success Initiative (TSI) complete in order to graduate: Math level 8.

Culinary, Restaurant Management, Certificate of Technology

Program Information
The Culinary Arts program provides basic education and training for cooks and apprentice chefs. Sequential courses provide for development of technical food preparation and service skills, understanding of the principles of food and beverage composition, experience in the use
and maintenance of professional food service equipment and basic development of supervisory skills.

The San Jacinto College Culinary Arts - Chef Training/Restaurant Management, Occupational Certificate:

- Provides training for supervisory positions in commercial food service; and
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Career Opportunities

Students who obtain a certificate or degree in restaurant management pursue careers as managers in:

- Hotels,
- Restaurants,
- Private clubs,
- Cruise lines,
- Country clubs, and
- Sports venues.

Earning Potential

Food Service Manager median salary: $58,759 per year\(^1\)

\(^1\) Source: texaswages.com (http://texaswages.com) Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1501, x1353; or North campus, 281-998-6150, x7150.

Campuses

Central Campus
North Campus

Information

The Culinary Arts program provides basic education and training for cooks and apprentice chefs. Sequential courses provide for development of technical food preparation and service skills, understanding of the principles of food and beverage composition, experience in the use and maintenance of professional food service equipment, and basic development of supervisory skills.

Certificate of Technology

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Plan of Study

Central Campus
4CULA-RSTR

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<thead>
<tr>
<th>Course</th>
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<tr>
<td>First Term</td>
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<tr>
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<td>Nutrition for the Food Service Professional</td>
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<td>or HECO 1322</td>
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<td>RSTO 2301</td>
<td>Principles of Food and Beverage Control</td>
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<tr>
<td>CHEF 1402</td>
<td>Principles of Healthy Cuisine</td>
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<td>HAMG 1340</td>
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<td>Computers in Hospitality</td>
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</tr>
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<td>IFWA 1205</td>
<td>Food Service Equipment and Planning</td>
<td>2</td>
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<td>RSTO 1304</td>
<td>Dining Room Service</td>
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<tr>
<td>RSTO 1325</td>
<td>Purchasing for Hospitality Operations</td>
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</tr>
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<td>ACNT 1303</td>
<td>Introduction to Accounting I</td>
<td>3</td>
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<tr>
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</tbody>
</table>

Capstone Experience: RSTO 1325 Purchasing for Hospitality Operations

Fire Protection, Chief Officer, Enhanced Skills Certificate

Program Information

Did you dream of being a firefighter when you were growing up? Many do, but few pursue becoming a true hero. If it is your dream to help save lives, then let San Jacinto College help you get on your way!

The San Jacinto College firefighter training academy:

- Is for aspiring firefighters looking to meet and exceed all state requirements to prepare students for a career as a firefighter; and
• Prepares students to take the Texas Commission on Fire Protection Basic Suppression Exam that certifies students for entry-level firefighter positions statewide.

The Associate of Applied Science (AAS) degree in firefighting is for academy graduates and current firefighters and provides additional fire-related education and certification opportunities.

**Career Opportunities**

Students who successfully complete the program requirements and the Texas Commission on Fire Protection Basic Suppression certification exam will be able to work as a firefighter in the state of Texas. Through international accreditation agreements, certified firefighters will also be able to work as firefighters in many other states.

Career opportunities include:

• Fire inspector
• Fire investigator
• Hazardous materials emergency response
• Emergency management

**Earning Potential**

Firefighter median salary: $50,257 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-476-1834.

**Campus**

Central Campus

**Information**

The fire protection technology program of San Jacinto College 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 (AAS) 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 College’s fire protection technology chief training officer.

---

**Firefighter Training Academy**

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. Student may contact the fire protection technology program at 281-476-1834 for further information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<td>Firefighter Certification I</td>
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<td>FIRS 1407</td>
<td>Firefighter Certification II</td>
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<td>FIRS 1313</td>
<td>Firefighter Certification III</td>
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<td>FIRS 1319</td>
<td>Firefighter Certification IV</td>
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<td>FIRS 1423</td>
<td>Firefighter Certification V</td>
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<td>FIRS 1329</td>
<td>Firefighter Certification VI</td>
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<tr>
<td>FIRS 1433</td>
<td>Firefighter Certification VII</td>
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<tr>
<td><strong>Total Credits</strong></td>
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**Academy Information**

New academy classes begin each summer and fall semester. Students may contact the fire protection technology office for specific schedules and registration information. The College suggests 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 program’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.

Administrative withdrawal from any San Jacinto College course due to disciplinary action shall result in administrative withdrawal from the Firefighter Training Academy.

**Certification Information**

San Jacinto College fire protection courses fulfill the educational requirements for numerous fire service certifications. Students may contact the fire protection technology program on the Central campus for specific information.

**Enhanced Skills Certificate**

The chief officer enhanced skills certificate is designed for students who have completed the Firefighting Associate of Applied Science (AAS) degree.

**Plan of Study**

Central Campus

EFIRE-CHOF

Please see Firefighting, Associate of Applied Science (p. 236) page for more information.
Firefighting, Associate of Applied Science

Program Information
Did you dream of being a firefighter when you were growing up? Many do, but few pursue becoming a true hero. If it is your dream to help save lives, then let San Jacinto College help you get on your way!

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Career Opportunities
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Career opportunities include:

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Earning Potential
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For more information, please contact 281-476-1834.

Campus
Central Campus

Information
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Firefighter Training Academy
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. Student may contact the fire protection technology program at 281-476-1834 for further information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>FIRS 1301</td>
<td>Firefighter Certification I</td>
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<td>FIRS 1407</td>
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<td>FIRS 1313</td>
<td>Firefighter Certification III</td>
<td>3</td>
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<tr>
<td>FIRS 1319</td>
<td>Firefighter Certification IV</td>
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<td>FIRS 1423</td>
<td>Firefighter Certification V</td>
<td>4</td>
</tr>
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<td>FIRS 1329</td>
<td>Firefighter Certification VI</td>
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<tr>
<td>FIRS 1433</td>
<td>Firefighter Certification VII</td>
<td>4</td>
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</table>

Total Credits: 24
Academy Information

New academy classes begin each summer and fall semester. Students may contact the fire protection technology office for specific schedules and registration information. The College suggests 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 program’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.

Administrative withdrawal from any San Jacinto College course due to disciplinary action shall result in administrative withdrawal from the Firefighter Training Academy.

Certification Information

San Jacinto College fire protection courses fulfill the educational requirements for numerous fire service certifications. Students may contact the fire protection technology program on the Central campus for specific information.

Associate of Applied Science Degree

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>FIRS 1433</td>
<td>Firefighter Certification VII</td>
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</table>

Prospective students must satisfy the general admission requirements of the College and provide satisfactory evidence of basic firefighter certification to the fire protection technology Department Chair and the Registrar.

Plan of Study

Central Campus

3FIRE-PROT

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>First Term</td>
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<tr>
<td>FIRS 1301</td>
<td>Firefighter Certification I</td>
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<tr>
<td>FIRS 1423</td>
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| Credits      | 14                        |

Second Term

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<td>FIRS 1433</td>
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| Credits      | 10                        |

Third Term

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<td>or MATH 1314</td>
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<td>Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)</td>
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<td>FIRT 1327</td>
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| Credits      | 15                        |

Fourth Term

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| Credits      | 15                        |

Summer Year Two Term

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Social and Behavioral Sciences or Government/Political Science or American History</td>
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<tr>
<td>FIRS 1319</td>
<td>Firefighter Health and Safety</td>
<td>3</td>
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</tbody>
</table>

| Credits      | 6                         |

| Total Credits | 60                      |

Verification of workplace competencies: Eligible for Credential Exams - Texas Commission on Fire Protection Basic Fire Suppression

Approved Electives

<table>
<thead>
<tr>
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<tr>
<td>FIRT 1303</td>
<td>Fire and Arson Investigation I</td>
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<tr>
<td>FIRT 1315</td>
<td>Hazardous Materials I</td>
<td>3</td>
</tr>
<tr>
<td>FIRT 1338</td>
<td>Fire Protection Systems</td>
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<td>FIRT 1342</td>
<td>Fire Officer I</td>
<td>3</td>
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<tr>
<td>FIRT 1343</td>
<td>Fire Officer II</td>
<td>3</td>
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<tr>
<td>FIRT 1345</td>
<td>Hazardous Materials II</td>
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<tr>
<td>FIRT 1370</td>
<td>Technical Rope Rescue I</td>
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<tr>
<td>FIRT 1408</td>
<td>Fire Inspector I</td>
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<tr>
<td>FIRT 1440</td>
<td>Fire Inspector II</td>
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<tr>
<td>FIRT 2309</td>
<td>Firefighting Strategies and Tactics I</td>
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<td>FIRT 2331</td>
<td>Firefighting Strategies and Tactics II</td>
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<td>FIRT 2333</td>
<td>Fire and Arson Investigation II</td>
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</tr>
<tr>
<td>FIRT 2345</td>
<td>Hazardous Materials III</td>
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</tr>
<tr>
<td>FIRT 2351</td>
<td>Company Fire Officer</td>
<td>3</td>
</tr>
<tr>
<td>FIRT 2370</td>
<td>Technical Rope Rescue II</td>
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</tr>
</tbody>
</table>

San Jacinto College 2019-2020
Firefighting, Certificate of Technology

Program Information
Did you dream of being a firefighter when you were growing up? Many do, but few pursue becoming a true hero. If it is your dream to help save lives, then let San Jacinto College help you get on your way!

The San Jacinto College firefighter training academy:
• Is for aspiring firefighters looking to meet and exceed all state requirements to prepare students for a career as a firefighter; and
• Prepares students to take the Texas Commission on Fire Protection Basic Suppression Exam that certifies students for entry-level firefighter positions statewide.

The Associate of Applied Science (AAS) degree in firefighting is for academy graduates and current firefighters and provides additional fire-related education and certification opportunities.

Career Opportunities
Students who successfully complete the program requirements and the Texas Commission on Fire Protection Basic Suppression certification exam will be able to work as a firefighter in the state of Texas. Through international accreditation agreements, certified firefighters will also be able to work as firefighters in many other states.

Career opportunities include:
• Fire inspector
• Fire investigator
• Hazardous materials emergency response
• Emergency management

Earning Potential
Firefighter median salary: $50,257 per year¹

¹ Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-476-1834.

Campus
Central Campus

Information
The fire protection technology program of San Jacinto College 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 (AAS) 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 College’s fire protection technology chief training officer.

Firefighter Training Academy
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. Student may contact the fire protection technology program at 281-476-1834 for further information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tr>
<td>FIRS 1301</td>
<td>Firefighter Certification I</td>
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</tr>
<tr>
<td>FIRS 1407</td>
<td>Firefighter Certification II</td>
<td>4</td>
</tr>
<tr>
<td>FIRS 1313</td>
<td>Firefighter Certification III</td>
<td>3</td>
</tr>
<tr>
<td>FIRS 1319</td>
<td>Firefighter Certification IV</td>
<td>3</td>
</tr>
<tr>
<td>FIRS 1423</td>
<td>Firefighter Certification V</td>
<td>4</td>
</tr>
<tr>
<td>FIRS 1329</td>
<td>Firefighter Certification VI</td>
<td>3</td>
</tr>
<tr>
<td>FIRS 1433</td>
<td>Firefighter Certification VII</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Credits 24

Academy Information
New academy classes begin each summer and fall semester. Students may contact the fire protection technology office for specific schedules and registration information. The College suggests 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 program’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.

Administrative withdrawal from any San Jacinto College course due to disciplinary action shall result in administrative withdrawal from the Firefighter Training Academy.

Certification Information
San Jacinto College fire protection courses fulfill the educational requirements for numerous fire service certifications. Students may contact the fire protection technology program on the Central campus for specific information.

Plan of Study
Central Campus
4FIREFTG

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRS 1301</td>
<td>Firefighter Certification I</td>
<td>3</td>
</tr>
<tr>
<td>FIRS 1407</td>
<td>Firefighter Certification II</td>
<td>4</td>
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<tr>
<td>FIRS 1313</td>
<td>Firefighter Certification III</td>
<td>3</td>
</tr>
<tr>
<td>FIRS 1423</td>
<td>Firefighter Certification V</td>
<td>4</td>
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<tr>
<td>Credits</td>
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</table>

Second Term
FIRS 1319    Firefighter Certification IV  3
FIRS 1329    Firefighter Certification VI  3
FIRS 1433    Firefighter Certification VII 4
EMSP 1501    Emergency Medical Technician 5
EMSP 1160    Clinical-Emergency Medical Technician 1

Credits 16
Total Credits 30

Capstone Experience: Eligibility to sit for the Texas Commission on Fire Protection - Basic Fire Suppression exam.

Massage Therapy, Occupational Certificate

Looking for a profession that’s literally hands-on? Are you passionate about helping people overcome injury, relieve stress, and generally live healthier lives? If so, San Jacinto College can prepare you for a career as a massage therapist in as few as two semesters. You will be introduced to a variety of massage modalities and discover what type of professional practice is right for you!

The San Jacinto College massage therapy program:

- Is a state approved program that provides foundational training in the art and science of therapeutic massage. Our 23-credit (592 contact-hour) program meets and exceeds the minimum educational requirements necessary for licensure in the state of Texas;
- Offers full-time students the possibility of completing the program in two semesters, so graduates can be licensed and working in less than one year; and
- Places emphasis on a variety of massage therapy techniques, anatomy and physiology, kinesiology, pathology, healthy lifestyles, hygiene and sanitation, successful business practices, professional ethics, hydrotherapy, and spa modalities. Students also complete a hands-on clinical internship prior to graduating as required by the state of Texas.

Career Opportunities
Licensed massage therapists seek employment in:

- Massage therapy establishments,
- Wellness centers,
- Spas,
- Cruise lines,
- Medical settings, and
- Private practices.

A large majority of licensed massage therapists are self-employed.

For more information contact one of the following and ask for the Program Handbook:
Shelley McCaul, Program Director at 281-998-6150, x1479 or email Shelley.McCaul@sjcd.edu
Mary Lindsay, Department Chair at 281-991-6150, x3587 or email Mary.Lindsay@sjcd.edu

Campus
South Campus

Information
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 (2) 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 Licensing and Regulation.

Admission
Required to pass a background check in order to receive massage therapy license.
There are certain circumstances that prohibit people from becoming a licensed massage therapist in the state of Texas. Please review the following reasons for ineligibility for massage licensure as taken directly from the TDLR website.

Sec. 455.152 Ineligibility for Licensure

(a) A person is not eligible for a license as a massage establishment, massage school, massage therapist, or massage therapy instructor if the person is an individual and has been convicted of, entered a plea of nolo contendere or guilty to, or received a deferred adjudication for an offense under Chapter 20A, Penal Code, or Subchapter A, Chapter 43, Penal Code, or another sexual offense.

(b) A person convicted of a violation of this chapter is ineligible for a license as a massage establishment, massage school, massage therapist, or massage therapy instructor until the fifth anniversary of the date of conviction.

### Plan of Study

**South Campus**

6MASG-THPY

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>MSSG 1105</td>
<td>Hydrotherapy</td>
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<td>MSSG 1109</td>
<td>Health and Hygiene</td>
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<td>MSSG 1411</td>
<td>Massage Therapy Fundamentals I</td>
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<td>MSSG 1413</td>
<td>Anatomy and Physiology for Massage</td>
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<td>BMGT 1341</td>
<td>Business Ethics</td>
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<td><strong>Second Term</strong></td>
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<tr>
<td>MSSG 2311</td>
<td>Massage Therapy Fundamentals II</td>
<td>3</td>
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<td>MSSG 2314</td>
<td>Pathology for Massage</td>
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<td>MSSG 2313</td>
<td>Kinesiology for Massage</td>
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<td>MSSG 2186</td>
<td>Internship—Massage Therapy/Therapeutic</td>
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<td>Massage</td>
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</table>

Capstone: Verification of Workplace Competencies—Eligible for the Credentialing Exam.

### Restaurant Management

See Culinary Arts
SCIENCE, TECHNOLOGY, ENGINEERING AND MATH (STEM)

- CIT, Advanced Information Technology Security Specialty, Occupational Certificate
- CIT, Applications Programming Specialty, Associate of Applied Science
- CIT, Applications Programming, Certificate of Technology
- CIT, Applied Computer Electronics Technology
- CIT, Beginning Network Administration Cisco Specialty, Occupational Certificate
- CIT, Computer Information Technology Foundations, Occupational Certificate
- CIT, Desktop Support and Microsoft Network Administration, Level 2 Certificate
- CIT, Desktop Support and Microsoft Network Administration, Certificate of Technology
- CIT, Information Technology Security Specialty, Associate of Applied Science
- CIT, Information Technology Security Specialty, Certificate of Technology
- CIT, Introductory Game Design and Development, Occupational Certificate
- CIT, Network Administration Cisco Specialty, Associate of Applied Science
- CIT, Network Administration Cisco Specialty, Certificate of Technology
- CIT, Simulation and Game Design, Associate of Applied Science
- CIT, Simulation and Game Design, Level 2 Certificate
- CIT, Web Applications Development Specialty, Associate of Applied Science
- CIT, Web Applications Development Specialty, Certificate of Technology
- CIT, Web Page Design and Implementation Specialty, Certificate of Technology
- Computer Science, Associate of Science
- Engineering Design Graphics Architectural/Civil/Structural Specialty, Associate of Applied Science
- Engineering Design Graphics Architectural/Civil/Structural Specialty, Certificate of Technology
- Engineering Design Graphics Mechanical Specialty, Associate of Applied Science
- Engineering Design Graphics Mechanical Specialty, Certificate of Technology
- Engineering Design Graphics Petro/Industrial Specialty, Associate of Applied Science
- Engineering Design Graphics Petro/Industrial Specialty, Certificate of Technology
- Engineering Design Graphics Petro/Industrial Specialty, Level 2 Certificate
- Engineering, Associate of Science in Engineering
- Life Sciences, Associate of Science
- Mathematics, Associate of Science
- Physical Sciences, Associate of Science

CIT, Advanced Information Technology Security Specialty, Occupational Certificate

Program Information
Are you passionate about the Internet? Are you fascinated by Web and Network security? If so, San Jacinto College's information technology security training can help you kick start a career in the network security field. This degree prepares students for entry level security certifications such as Security+. It lays the ground work for higher level certifications. As an Information Technologist, you can help keep hackers, viruses, and terrorists from intruding and damaging computers and networks.

The San Jacinto College Computer Information Technology (CIT) curriculum:
- Is designed to provide students with an understanding of the principles and techniques of information technology;
• Prepares students to work in the network security field to help keep hackers, viruses, and terrorists from intruding and damaging computers; and
• Teaches students how to safeguard computer operating systems by teaching server support skills and designing and implementing security systems.

Additional Information

Due to variations in requirements at four-year colleges and universities, a student desiring to pursue a bachelor’s degree in computer science is strongly advised to consult the CIT Department Chair at San Jacinto College and at the institution to which they wish to transfer to review the appropriate transfer degree plans to the designated university. The field of study Computer Science may also be appropriate.

*The program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. The College recommends completion of the 21 credit hour CIT foundations occupational certificate before continuing into a certificate of technology or AAS degree. The classes in the core CIT occupational certificate will apply toward most of the other CIT certificates of technology and AAS degrees.

Career Opportunities

Graduates of who earn an AAS degree or certificate of technology typically pursue careers as:

• Information technology security officers,
• Network Operations Specialists,
• VPN Engineers, and
• Chief Security Officers.

For more information, students may contact South campus, 281-929-4603 or North campus, 281-998-6150, x7242.

Campuses

North Campus
South Campus

Information

The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree course work even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certificates and AAS degrees.

The CIT curriculum provides the graduate with the knowledge and in-demand applied technical skills needed to enter computer-related occupations in the business/industry job market. Certificates and AAS degrees are available in the following areas: Applications Programming, Desktop Support and Microsoft Network Administration, Information Technology Security, Simulation and Game Design, Network Administration Cisco, and Web Applications Development.

• The Applications Programming Specialty is for students interested in writing computer programs, both stand-alone and web-based, in languages such as C++ and Java. Emphasis is placed on solving business-related computer problems through programming techniques and procedures, using appropriate languages and software.
• In Desktop Support and Microsoft Network Administration, a student can choose between a track with emphasis on computer hardware and software support or one with focus on the installation and maintenance of networks. Students will be exposed to current tools and techniques for implementing solutions for customers in network environments.
• The Simulation and Game design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.
• In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.
• The Web application development program prepares students for entry-level positions in website design, development, and administration.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study beginning network administration, Cisco, and advanced information technology security. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry 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, students desiring a bachelor’s degree in Computer Science are 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 Computer Science Field of Study located elsewhere in the catalog may also be appropriate.

Computer Information Technology Industry Certification Program

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study:

1. Beginning Network Administration Cisco and/or
2. Advanced Information Technology Security

These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry certificate consists of only the courses required to obtain a specific certification.

Occupational Certificate

The following certificate is for students that have experience in the computer information technology field. With this certificate or an associate of applied science degree, graduates can work in the network security field to help keep black hat hackers, computer viruses and cyber terrorists from stealing data and damaging computers. Common job titles include:

Chief Security Officers.
VPN Engineers, and
• IT Security Technician
• Computer Security Analyst I and II
• IT Security Engineer
• Network Security Analyst
• IT Governance and Security Analyst
• Senior IT Security Analyst
• Information System Security Officer
• Penetration Tester
• Security Architect
• Security Systems Administrator
• IT Security Consultant
• Cryptographer
• Cryptanalyst

### Plan of Study

**All Campuses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<td><strong>First Term</strong></td>
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<tr>
<td>ITSY 2300</td>
<td>Operating System Security</td>
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<tr>
<td>ITSY 2301</td>
<td>Firewalls and Network Security</td>
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<tr>
<td>ITSY 2341</td>
<td>Security Management Practices</td>
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<td>ITSY 2342</td>
<td>Incident Response and Handling</td>
<td>3</td>
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<td>ITSY 2343</td>
<td>Computer System Forensics</td>
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<td>ITSY 2345</td>
<td>Network Defense and Countermeasures</td>
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<tr>
<td><strong>Total Credits</strong></td>
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**Capstone Experience:** ITSY 2345 Network Defense and Countermeasures

### Program Information

Do you want to know how software works? Do you want to write your own programs and apps? How would you like to design a program, write it, test it, and see it come to life? If so, San Jacinto College’s computer information technology program might be the right program for you! It is designed to prepare graduates to continue to the university to complete a computer information systems or computer science degree. San Jacinto College’s Computer Information Technology (CIT) curriculum:

• Is designed to provide the student with an understanding of the principles of information technology, experience with techniques of information technology, and competence in the application of computer information systems;
• Places an emphasis on computer information technology and the use of computer languages in the solution of business and some scientific problems; and
• Will prepare entry-level application developers for employment in the area of business software application development. Graduates of this program will have designed, written, tested, and debugged programs in several major programming languages in both individual and team-oriented settings.

### Additional Information

For students seeking a certificate of technology and/or Associate of Applied Science (AAS) degree, the College recommends completion of the 21 credit hour CIT foundations occupational certificate before continuing into a certificate of technology or AAS degree. The classes in the CIT foundations certificate will apply toward most of the other CIT certificates of technology and AAS degrees. Due to variations in requirements at four-year colleges and universities, the College strongly advises students desiring to pursue a bachelor’s degree in Computer Science to consult the CIT Department Chair at San Jacinto College and at the institution to which they wish to transfer to review the appropriate transfer degree plans to the designated university. The Field of Study Computer Science, located in the San Jacinto College catalog, may also be appropriate.

### Career Opportunities

Students who graduate from San Jacinto College with a degree or certificate in programming pursue careers as:

• Software Developers,
• Computer Systems Analysts,
• Entry (Junior Level) Programmers,
• Programmer Analysts,
• Software Applications Specialists,
• Software Designers, and
• Software/Application Support.

**For more information, please contact,** Central campus, 281-476-1836; North campus, 281-998-6150, x7242; or South campus, 281-998-6150, x3502

### Campuses

Central Campus
North Campus
South Campus
Information

The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree coursework even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certificates and AAS degrees.

The CIT curriculum provides the graduate with the knowledge and in-demand applied technical skills needed to enter computer-related occupations in the business/industry job market. Certificates and AAS degrees are available in the following areas: Applications Programming, Desktop Support and Microsoft Network Administration, Information Technology Security, Simulation and Game Design, Network Administration Cisco, and Web Applications Development.

- The Applications Programming Specialty is for students interested in writing computer programs, both stand-alone and web-based, in languages such as C++ and Java. Emphasis is placed on solving business-related computer problems through programming techniques and procedures, using appropriate languages and software.

- In Desktop Support and Microsoft Network Administration, a student can choose between a track with emphasis on computer hardware and software support or one with an emphasis on the installation and maintenance of networks. Students will be exposed to current tools and techniques for implementing solutions for customers in network environments.

- The Simulation and Game Design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.

- In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.

- The Web application development program prepares students for entry-level positions in website design, development, and administration.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study: beginning network administration, Cisco, and advanced information technology security. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry 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, students desiring a bachelor’s degree in Computer Science are 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 Computer Science Field of Study located elsewhere in the catalog may also be appropriate.

Associate of Applied Science Degree

Most employers require an associate degree for entry-level positions in this field. Common job titles for this degree are Entry-level Application Programmer and Software Developer.

Plan of Study

All Campuses

3IT-APPL

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
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</tr>
<tr>
<td>ITSC 1305</td>
<td>Introduction to PC Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
<td>3</td>
</tr>
<tr>
<td>ITNW 1325 or ITCC 1314</td>
<td>Fundamentals of Networking Technologies or CCNA 1: Introduction to Networks</td>
<td>3</td>
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<tr>
<td>ITSE 1329</td>
<td>Programming Logic and Design</td>
<td>3</td>
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<tr>
<td>ITSE 1331</td>
<td>Introduction to Visual BASIC Programming</td>
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<tr>
<td><strong>Credits</strong></td>
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<td><strong>Second Term</strong></td>
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<tr>
<td>ITSC 1319</td>
<td>Internet/Web Page Development</td>
<td>3</td>
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<td>ITSE 1307</td>
<td>Introduction to C++ Programming</td>
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<td>ENGL 1301</td>
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<tr>
<td>SPCH 1321</td>
<td>Business and Professional Speech</td>
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<td><strong>Third Term</strong></td>
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<td>ITSE 2331</td>
<td>Advanced C++ Programming</td>
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<tr>
<td>ITSC 1325</td>
<td>Personal Computer Hardware</td>
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<td>MATH 1332</td>
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<td>MATH 1314</td>
<td>College Algebra (or higher)</td>
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<td><strong>Fourth Term</strong></td>
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<td>SOCI 1301</td>
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<td>Approved Elective (p. 244)</td>
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<tr>
<td>Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)</td>
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<td>ITSE 2317</td>
<td>Java Programming</td>
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<td>ITSC 2364</td>
<td>Practicum - Computer and Information Sciences, General</td>
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<td>Approved Elective (p. 244)</td>
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<td><strong>Total Credits</strong></td>
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Capstone Experience: ITSE 2317 Java Programming

**Students must be Texas Success initiative (TSI) complete in order to graduate: Math level 8.**
Approved Electives

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<thead>
<tr>
<th>Code</th>
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<tr>
<td>GAME 1303</td>
<td>Introduction to Game Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1307</td>
<td>UNIX Operating System I</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1321</td>
<td>Intermediate PC Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITSE 1345</td>
<td>Introduction to Oracle SQL</td>
<td>3</td>
</tr>
<tr>
<td>ITSY 1342</td>
<td>Information Technology Security</td>
<td>3</td>
</tr>
</tbody>
</table>

CIT, Applications Programming, Certificate of Technology

Program Information

Do you want to know how software works? Do you want to write your own programs and apps? How would you like to design a program, write it, test it, and see it come to life? If so, San Jacinto College’s computer information technology program might be the right program for you! It is designed to prepare graduates to continue to the university to complete a computer information systems or computer science degree. San Jacinto College’s Computer Information Technology (CIT) curriculum:

- Is designed to provide the student with an understanding of the principles of information technology, experience with techniques of information technology, and competence in the application of computer information systems;
- Places an emphasis on computer information technology and the use of computer languages in the solution of business and some scientific problems; and
- Will prepare entry-level application developers for employment in the area of business software application development. Graduates of this program will have designed, written, tested, and debugged programs in several major programming languages in both individual and team-oriented settings.

Additional Information

For students seeking a certificate of technology and/or Associate of Applied Science (AAS) degree, the College recommends completion of the 21 credit hour CIT foundations occupational certificate before continuing into a certificate of technology or AAS degree. The classes in the CIT foundations certificate will apply toward most of the other CIT certificates of technology and AAS degrees. Due to variations in requirements at four-year colleges and universities, the College strongly advises students desiring to pursue a bachelor’s degree in Computer Science to consult the CIT Department Chair at San Jacinto College and at the institution to which they wish to transfer to review the appropriate transfer degree plans to the designated university. The Field of Study Computer Science, located in the San Jacinto College catalog, may also be appropriate.

Career Opportunities

Students who graduate from San Jacinto College with a degree or certificate in programming pursue careers as:

- Software Developers,
- Computer Systems Analysts,
- Entry (Junior Level) Programmers,
- Programmer Analysts,
- Software Applications Specialists,
- Software Designers, and
- Software/Application Support.

For more information, please contact, Central campus, 281-476-1836; North campus, 281-998-6150, x7242; or South campus, 281-998-6150, x3502

Campuses

Central Campus
North Campus
South Campus

Information

The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree course work even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certificates and AAS degrees.

The CIT curriculum provides the graduate with the knowledge and in-demand applied technical skills needed to enter computer-related occupations in the business/industry job market. Certificates and AAS degrees are available in the following areas: Applications Programming, Desktop Support and Microsoft Network Administration, Information Technology Security, Simulation and Game Design, Network Administration Cisco, and Web Applications Development.

- The Applications Programming Specialty is for students interested in writing computer programs, both stand-alone and web-based, in languages such as C++ and Java. Emphasis is placed on solving business-related computer problems through programming techniques and procedures, using appropriate languages and software.
- In Desktop Support and Microsoft Network Administration, a student can choose between a track with emphasis on computer hardware and software support or one with focus on the installation and maintenance of networks. Students will be exposed to current tools and techniques for implementing solutions for customers in network environments.
- The Simulation and Game Design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.
- In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.
- The Web application development program prepares students for entry-level positions in website design, development, and administration.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study: beginning network administration, Cisco, and advanced information technology security. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each
industry 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, students desiring a bachelor’s degree in Computer Science are 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 Computer Science Field of Study located elsewhere in the catalog may also be appropriate.

Computer Information Technology Industry Certification Program

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study:

1. Beginning Network Administration Cisco and/or
2. Advanced Information Technology Security

These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry certificate consists of only the courses required to obtain a specific certification.

Certificate of Technology

The Applications Programming 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 Applications Programming Associate of Applied Science degree.

The following curriculum provides the student with basic application programming development skills. Common job titles for this certificate are Entry-level Application Programmer and Software Developer.

Plan of Study

All Campuses

Course Title Credits

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>First Term</td>
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<tr>
<td>ITSC 1305</td>
<td>Introduction to PC Operating Systems</td>
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<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
<td>3</td>
</tr>
<tr>
<td>ITNW 1325</td>
<td>Fundamentals of Networking Technologies</td>
<td>3</td>
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<tr>
<td>or ITCC 1314</td>
<td>Introduction to Networks</td>
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<td>ITSE 1329</td>
<td>Programming Logic and Design</td>
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<td>ITSE 1331</td>
<td>Introduction to Visual BASIC Programming</td>
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<td>ITSE 1307</td>
<td>Introduction to C++ Programming</td>
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<td>ITSW 1307</td>
<td>Introduction to Database</td>
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<td>Credits</td>
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<td>ITSE 2317</td>
<td>Java Programming</td>
<td>3</td>
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<td>ITSE 2331</td>
<td>Advanced C++ Programming</td>
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<td>Select one of the following:</td>
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<td>ITSC 2364</td>
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Approved Elective (p. 245)

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<tr>
<td>GAME 1303</td>
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<td>ITSC 1307</td>
<td>UNIX Operating System I</td>
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<td>ITSE 1345</td>
<td>Introduction to Oracle SQL</td>
<td>3</td>
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<td>ITSY 1342</td>
<td>Information Technology Security</td>
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</table>

Total Credits 30

Capstone Experience: ITSE 2331 Advanced C++ Programming

Approved Elective:

GAME 1303 Introduction to Game Design and Development

CIT, Applied Computer Electronics Technology

See Electronics Technology
CIT, Beginning Network Administration Cisco Specialty, Occupational Certificate

Program Information
Are you interested in the way things work? Have you always wanted to build your own computer? If so, San Jacinto College’s desktop support program can provide you with the skills to become a desktop and laptop computer hardware and software support expert. Our program teaches students to install, maintain, repair, replace, and upgrade computers to set you on course for a fulfilling career in the always booming tech industry.

The San Jacinto College’s network administration program:

• Provides students with the skills necessary to work as computer network service technicians, with an emphasis placed on installing and maintaining network;
• Is designed to provide the student with skills in desktop computer hardware and software support;
• Teaches students to install, maintain, repair, replace, and upgrade desktop computers; and
• Prepares students for industry certifications such as A+, Network+, Security+ and Microsoft Office Specialist (MOS), Microsoft Certified Professional (MCP), and Certified Cisco Network Associate (CCNA).

Career Opportunities
The Associate of Applied Science (AAS) in Desktop Support and Microsoft Networking is an excellent entry point into future studies leading to careers that include:

• Desktop Support Specialists,
• Helpdesk Supports,
• PC Technicians,
• MS Network Administrators,
• Network Technicians,
• Network Administrators,
• Server Administrators, and
• Network Operations Specialists.

Earning Potential
Network and Computer Systems Administrators median salary: $95,262 per year

Computer Network Support Specialist median salary: $70,660 per year

Source: texaswages.com, Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1836; North campus, 281-998-6150, x7242; or South campus, 281-929-4603.

Campuses
North Campus
South Campus

Information
The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree course work even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certifications and AAS degrees.

The CIT curriculum provides the graduate with the knowledge and in-demand applied technical skills needed to enter computer-related occupations in the business/industry job market. Certificates and AAS degrees are available in the following areas: Applications Programming, Desktop Support and Microsoft Network Administration, Information Technology Security, Simulation and Game Design, Network Administration Cisco, and Web Applications Development.

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• In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.
• The Web application development program prepares students for entry-level positions in website design, development, and administration.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study.
beginning network administration, Cisco, and advanced information technology security. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry 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, students desiring a bachelor's degree in Computer Science are 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 Computer Science Field of Study located elsewhere in the catalog may also be appropriate.

Computer Information Technology Industry Certification Program

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study:

1. Beginning Network Administration Cisco and/or Advanced Information Technology Security

These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry certificate consists of only the courses required to obtain a specific certification.

Plan of Study

All Campuses

6IT-BC

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<td>ITCC 1440</td>
<td>CCNA 2: Routing and Switching Essentials</td>
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<td>ITCC 2412</td>
<td>CCNA 3: Scaling Networks</td>
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<td>ITCC 2413</td>
<td>CCNA 4: Connecting Networks</td>
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<td>Total Credits</td>
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Capstone Experience: ITCC 2413 CCNA 4: Connecting Networks

CIT, Computer Information Technology Foundations, Occupational Certificate

The Computer Information Technology (CIT) Foundation certificate is the recommended for students entering the CIT field. After earning the 21 hours for the certificate, students are eligible to continue their studies toward other certificates and an Associate of Applied Science (AAS) degree.

Information

The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree course work even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certificates and AAS degrees.

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Plan of Study

All Campuses

6IT-FNDLS

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<th>Course</th>
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<td>ITSC 1309</td>
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</tbody>
</table>
ITSC 1305 Introduction to PC Operating Systems 3
ITSC 1325 Personal Computer Hardware 3
ITNW 1325 or ITCC 1314 Fundamentals of Networking Technologies or CCNA 1: Introduction to Networks 3

Credits 12

Second Term
ITSC 1321 Intermediate PC Operating Systems 3
ITSE 1329 or ITSE 1331 Programming Logic and Design or Introduction to Visual BASIC Programming 3
ITSY 1342 Information Technology Security 3

Credits 9

Total Credits 21

Capstone Experience: ITSC 1325 Personal Computer Hardware

CIT, Desktop Support and Microsoft Network Administration, Associate of Applied Science Degree

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Campuses
North Campus
South Campus

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- The Simulation and Game Design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.

- In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.

- The Web application development program prepares students for entry-level positions in website design, development, and administration.

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Desktop Support and Microsoft Network Administration

The Desktop Support curriculum is designed to provide students with skills in desktop computer hardware and software support, and prepare them for exams leading to industry certifications such as A+, Network+, 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), Network+, and Server+ certifications. Common job titles for this certificate include network technician, network administrator, server administrator, and network operations specialist.

Plan of Study

All Campuses

3IF-DSMN

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Term</td>
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<tr>
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<td>ITSC 1309</td>
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<td>Personal Computer Hardware</td>
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<td>ITNW 1325</td>
<td>Fundamentals of Networking Technologies or CCNA 1:</td>
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<td></td>
<td>Introduction to Networks</td>
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<td>Speech</td>
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<td>ITSC 1321</td>
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<td>Third Term</td>
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<td>UNIX Operating System I</td>
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<tr>
<td>Approved Elective (p. 249)</td>
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<tr>
<td>ITSW 1307</td>
<td>Introduction to Database</td>
<td>3</td>
</tr>
<tr>
<td>ITSY 1342</td>
<td>Information Technology Security</td>
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<td>ITSC 2339</td>
<td>Personal Computer Help Desk</td>
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<tr>
<td>ENGL 2311</td>
<td>Technical and Business Writing</td>
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<td>or ENGL 1302</td>
<td>or Composition II</td>
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<tr>
<td>ITSY 2300</td>
<td>Operating System Security</td>
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</tr>
<tr>
<td>ITNW 1313</td>
<td>Computer Virtualization</td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences or Government/Political Science or American History</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)</td>
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<td>ITSC 2364</td>
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<td>Total Credits</td>
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Capstone Experience: ITNW 1313 Computer Virtualization

Approved Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITCC 1440</td>
<td>CCNA 2: Routing and Switching Essentials</td>
<td>4</td>
</tr>
<tr>
<td>ITSE 1307</td>
<td>Introduction to C++ Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

**Students must be Texas Success Initiative (TSI) complete in order to graduate: Math level 8.**
CIT, Desktop Support and Microsoft Network Administration, Certificate of Technology

Program Information
Are you interested in the way things work? Have you always wanted to build your own computer? If so, San Jacinto College's desktop support program can provide you with the skills to become a desktop and laptop computer hardware and software support expert. Our program teaches students to install, maintain, repair, replace, and upgrade computers to set you on course for a fulfilling career in the always booming tech industry.

The San Jacinto College's network administration program:
• Provides students with the skills necessary to work as computer network service technicians, with an emphasis placed on installing and maintaining network;
• Is designed to provide the student with skills in desktop computer hardware and software support;
• Teaches students to install, maintain, repair, replace, and upgrade desktop computers; and
• Prepares students for industry certifications such as A+, Network+, Security+ and Microsoft Office Specialist (MOS), Microsoft Certified Professional (MCP), and Certified Cisco Network Associate (CCNA).

Career Opportunities
The Associate of Applied Science (AAS) in Desktop Support and Microsoft Networking is an excellent entry point into future studies leading to careers that include:
• Desktop Support Specialists,
• Helpdesk Supports,
• PC Technicians,
• MS Network Administrators,
• Network Technicians,
• Network Administrators,
• Server Administrators, and
• Network Operations Specialists.

Earning Potential
Network and Computer Systems Administrators median salary: $95,262 per year
Computer Network Support Specialist median salary: $70,660 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1836; North campus, 281-998-6150, x7242; or South campus, 281-929-4603.

Campuses
North Campus
South Campus

Information
The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree course work even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certificates and AAS degrees.

The CIT curriculum provides the graduate with the knowledge and in-demand applied technical skills needed to enter computer-related occupations in the business/industry job market. Certificates and AAS degrees are available in the following areas: Applications Programming, Desktop Support and Microsoft Network Administration, Information Technology Security, Simulation and Game Design, Network Administration Cisco, and Web Applications Development.

• The Applications Programming Specialty is for students interested in writing computer programs, both stand-alone and web-based, in languages such as C++ and Java. Emphasis is placed on solving business-related computer problems through programming techniques and procedures, using appropriate languages and software.
• In Desktop Support and Microsoft Network Administration, a student can choose between a track with emphasis on computer hardware and software support or one with focus on the installation and maintenance of networks. Students will be exposed to current tools and techniques for implementing solutions for customers in network environments.
• In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.
• The Web application development program prepares students for entry-level positions in website design, development, and administration.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study.
beginning network administration, Cisco, and advanced information technology security. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry 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, students desiring a bachelor's degree in Computer Science are 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 Computer Science Field of Study located elsewhere in the catalog may also be appropriate.

Desktop Support and Microsoft Network Administration

The Desktop Support curriculum is designed to provide students with skills in desktop computer hardware and software support, and prepare them for exams leading to industry certifications such as A+, Network+, 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), Network+, and Server+ certifications. Common job titles for this certificate include network technician, network administrator, server administrator, and network operations specialist.

Plan of Study

**All Campuses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Term</strong></td>
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</tr>
<tr>
<td>ITSC 1305</td>
<td>Introduction to PC Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
<td>3</td>
</tr>
<tr>
<td>ITNW 1325</td>
<td>Fundamentals of Networking Technologies or CCNA 1: Introduction to Networks</td>
<td>3</td>
</tr>
<tr>
<td>ITSE 1329</td>
<td>Programming Logic and Design</td>
<td>3</td>
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<td><strong>Credits</strong></td>
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<td><strong>Second Term</strong></td>
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<td>ITSC 1325</td>
<td>Personal Computer Hardware</td>
<td>3</td>
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<td>ITNW 1354</td>
<td>Implementing and Supporting Servers</td>
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<tr>
<td>ITSC 2339</td>
<td>Personal Computer Help Desk</td>
<td>3</td>
</tr>
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<td>ITSW 1307</td>
<td>Introduction to Database</td>
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<td><strong>Credits</strong></td>
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<tr>
<td><strong>Third Term</strong></td>
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<tr>
<td>ITNW 1313</td>
<td>Computer Virtualization</td>
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<td>ITSY 1342</td>
<td>Information Technology Security</td>
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<td>ITSC 1321</td>
<td>Intermediate PC Operating Systems</td>
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Select one of the following: 3

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<tr>
<td>ITCC 1440</td>
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**Capstone Experience:** ITNW 1313 Computer Virtualization

**Approved Electives**

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</tr>
</tbody>
</table>

**CIT, Information Technology Security Specialty, Associate of Applied Science**

Program Information

Are you passionate about the Internet? Are you fascinated by Web and Network security? If so, San Jacinto College’s information technology security training can help you kick start a career in the network security field. This degree prepares students for entry level security certifications such as Security+. It lays the ground work for higher level certifications. As an Information Technologist, you can help keep hackers, viruses, and terrorists from intruding and damaging computers and networks.

The San Jacinto College Computer Information Technology (CIT) curriculum:

- Is designed to provide students with an understanding of the principles and techniques of information technology;
- Prepares students to work in the network security field to help keep hackers, viruses, and terrorists from intruding and damaging computers; and
- Teaches students how to safeguard computer operating systems by teaching server support skills and designing and implementing security systems.
Additional Information

Due to variations in requirements at four-year colleges and universities, a student desiring to pursue a bachelor’s degree in computer science is strongly advised to consult the CIT Department Chair at San Jacinto College and at the institution to which they wish to transfer to review the appropriate transfer degree plans to the designated university. The field of study Computer Science may also be appropriate.

*The program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. The College recommends completion of the 21 credit hour CIT foundations occupational certificate before continuing into a certificate of technology or AAS degree. The classes in the core CIT occupational certificate will apply toward most of the other CIT certificates of technology and AAS degrees.

Career Opportunities

Graduates of who earn an AAS degree or certificate of technology typically pursue careers as:

- Information technology security officers,
- Network Operations Specialists,
- VPN Engineers, and
- Chief Security Officers.

For more information, students may contact South campus, 281-929-4603 or North campus, 281-998-6150, x7242.

Campuses

North Campus
South Campus

Information

The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree course work even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certificates and AAS degrees.

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- The Simulation and Game Design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.
- In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.
- The Web application development program prepares students for entry-level positions in website design, development, and administration.

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Information Technology Security

With the Information Technology Security certificate or Associate of Applied Science (AAS) 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.

Plan of Study

All Campuses

3IT-ITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td><strong>First Term</strong></td>
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</tr>
<tr>
<td>ITSY 1342</td>
<td>Information Technology Security</td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
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<td><strong>Second Term</strong></td>
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<td>ITSC 1307</td>
<td>UNIX Operating System I</td>
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<td>ITSE 1329</td>
<td>Programming Logic and Design</td>
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<td>ITSW 1307</td>
<td>Introduction to Database</td>
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<td>ITSY 2300</td>
<td>Operating System Security</td>
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<td>ITSY 2301</td>
<td>Firewalls and Network Security</td>
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<tr>
<td>ITSY 2341</td>
<td>Security Management Practices</td>
<td>3</td>
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<tr>
<td></td>
<td>Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)</td>
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<tr>
<td>Speech</td>
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**Credits**  

15

**Fourth Term**  

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<td>ITSY 2343</td>
<td>Computer System Forensics</td>
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<td>ITSY 2345</td>
<td>Network Defense and Countermeasures</td>
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<td>ENGL 2311 or ENGL 1302</td>
<td>Technical and Business Writing or Composition II</td>
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<td></td>
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</tbody>
</table>

**Credits**  

15

**Total Credits**  

60

**Capstone Experience:** ITSY 2345 Network Defense and Countermeasures

****Students must be Texas Success Initiative (TSI) complete in order to graduate: Math level 8.

---

**CIT, Information Technology Security Specialty, Certificate of Technology**

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**Campuses**

North Campus  
South Campus

**Information**

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Plan of Study
All Campuses
4IT-ITS

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<td>ITNW 1354</td>
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<td>ITSY 2301</td>
<td>Firewalls and Network Security</td>
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<td>Security Management Practices</td>
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<td>ITSW 1307</td>
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<td>9</td>
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<tr>
<td>Total Credits</td>
<td></td>
<td>33</td>
</tr>
</tbody>
</table>

Capstone Experience: ITSY 2341 Security Management Practices

CIT, Introductory Game Design and Development, Occupational Certificate

Program Information
Are you a dreamer of worlds? Have you always been interested in playing the game as much as you’re interested in knowing how it was created? If so, a rewarding career in gaming may be in your future. At San Jacinto College, we teach the latest in game design and programming, simulation, level design, engine development, tool building, and multimedia programming. You’ll get your hands on the latest design applications and game engines, including multi-player and multimedia audio and video tools. Are you up to the challenge?

San Jacinto College’s Simulation and Gaming Technology program:
• Is designed for students who are interested in advanced programming areas, such as simulations, game design, game programming, level design, engine development tool building, and multimedia programming;

• Includes in-depth hands-on training with industry standard applications and game engines, as well as multi-player and multimedia (including audio and video) programming, and two semester project classes where students design and implement their own games or simulations; and

• Offers a simulation and game programming certificate program so students can enhance their training beyond the basic application programming certificate or Associate of Applied Science (AAS) degree.

Additional Information

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 completing this program’s certificate requirements.

Career Opportunities

The Computer Simulation and Gaming Program prepares students for careers as:

• Entry level programmers,
• Game programmers,
• Level designers,
• Assistant game designers,
• Game engine programmers, and
• Software testers.

Earning Potential

Web developer Median Salary: $74,929 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact North campus, 281-998-6150, x7242; or South campus, 281-998-6150, x3502.

Campuses

North Campus
South Campus

Information

The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree coursework even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certificates and AAS degrees.

The CIT curriculum provides the graduate with the knowledge and in-demand applied technical skills needed to enter computer-related occupations in the business/industry job market. Certificates and AAS degrees are available in the following areas: Applications Programming, Desktop Support and Microsoft Network Administration, Information Technology Security, Simulation and Game Design, Network Administration Cisco, and Web Applications Development.

• The Applications Programming Specialty is for students interested in writing computer programs, both stand-alone and web-based, in languages such as C++ and Java. Emphasis is placed on solving business-related computer problems through programming techniques and procedures, using appropriate languages and software.

• In Desktop Support and Microsoft Network Administration, a student can choose between a track with emphasis on computer hardware and software support or one with focus on the installation and maintenance of networks. Students will be exposed to current tools and techniques for implementing solutions for customers in network environments.

• The Simulation and Game Design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.

• In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.

• The Web application development program prepares students for entry-level positions in website design, development, and administration.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study beginning network administration, Cisco, and advanced information technology security. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry 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, students desiring a bachelor’s degree in Computer Science are 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 Computer Science Field of Study located elsewhere in the catalog may also be appropriate.

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.

Plan of Study

All Campuses
6IT-GAME

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Term</td>
<td></td>
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</tr>
<tr>
<td>GAME 1303</td>
<td>Introduction to Game Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>INEW 2340</td>
<td>Object-Oriented Design - Game Design</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1319</td>
<td>Internet/Web Page Development</td>
<td>3</td>
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<td></td>
<td>Credits</td>
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<td>Second Term</td>
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<tr>
<td>ITSE 1329</td>
<td>Programming Logic and Design</td>
<td>3</td>
</tr>
<tr>
<td>ITSE 1307</td>
<td>Introduction to C++ Programming or 3-D Modeling</td>
<td>3</td>
</tr>
<tr>
<td>or ARTV 1345</td>
<td>and Rendering</td>
<td></td>
</tr>
<tr>
<td>IMED 1341</td>
<td>Interface Design with Photoshop</td>
<td>3</td>
</tr>
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<td></td>
<td>Credits</td>
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</table>

Capstone Experience: INEW 2340 Object-Oriented Design - Game Design

CIT, Network Administration Cisco Specialty, Associate of Applied Science

Program Information

Are you interested in the way things work? Have you always wanted to build your own computer? If so, San Jacinto College’s desktop support program can provide you with the skills to become a desktop and laptop computer hardware and software support expert. Our program teaches students to install, maintain, repair, replace, and upgrade computers to set you on course for a fulfilling career in the always booming tech industry.

The San Jacinto College’s network administration program:

- Teaches students to install, maintain, repair, replace, and upgrade desktop computers; and
- Prepares students for industry certifications such as A+, Network+, Security+ and Microsoft Office Specialist (MOS), Microsoft Certified Professional (MCP), and Certified Cisco Network Associate (CCNA).

Career Opportunities

The Associate of Applied Science (AAS) in Desktop Support and Microsoft Networking is an excellent entry point into future studies leading to careers that include:

- Desktop Support Specialists,
- Helpdesk Supports,
- PC Technicians,
- MS Network Administrators,
- Network Technicians,
- Network Administrators,
- Server Administrators, and
- Network Operations Specialists.

Earning Potential

Network and Computer Systems Administrators median salary: $95,262 per year

Computer Network Support Specialist median salary: $70,660 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1836; North campus, 281-998-6150, x7242; or South campus, 281-929-4603.

Campuses

North Campus
South Campus

Information

The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree coursework even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certificates and AAS degrees.

The CIT curriculum provides the graduate with the knowledge and in-demand applied technical skills needed to enter computer-related occupations in the business/industry job market. Certificates and AAS degrees are available in the following areas: Applications Programming, Desktop Support and Microsoft Network Administration, Information Technology Security, Simulation and Game Design, Network Administration Cisco, and Web Applications Development.

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• In Desktop Support and Microsoft Network Administration, a student can choose between a track with emphasis on computer hardware and software support or one with focus on the installation and maintenance of networks. Students will be exposed to current tools and techniques for implementing solutions for customers in network environments.

• The Simulation and Game Design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.

• In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.

• The Web application development program prepares students for entry-level positions in website design, development, and administration.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study: beginning network administration, Cisco, and advanced information technology security. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry 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, students desiring a bachelor’s degree in Computer Science are 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 Computer Science Field of Study located elsewhere in the catalog may also be appropriate.

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.

Plan of Study

All Campuses

3IT-NW-C

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>First Term</td>
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<tr>
<td>ITSC 1305</td>
<td>Introduction to PC Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1325</td>
<td>Personal Computer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>ITCC 1314</td>
<td>CCNA 1: Introduction to Networks</td>
<td>3</td>
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Credits 12

Second Term

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ITCC 1440</td>
<td>CCNA 2: Routing and Switching Essentials</td>
<td>4</td>
</tr>
<tr>
<td>ITSC 1321</td>
<td>Intermediate PC Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITSE 1329 or ITSE 1331</td>
<td>Programming Logic and Design or Introduction to Visual BASIC Programming</td>
<td>3</td>
</tr>
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Select one of the following:

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<th>Title</th>
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<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher)</td>
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<tr>
<td>MATH 1314</td>
<td>College Algebra (or higher)</td>
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<tr>
<td>Life and Physical Sciences (Natural Science)</td>
<td>Speech</td>
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Credits 16

Third Term

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>ITCC 2412</td>
<td>CCNA 3: Scaling Networks</td>
<td>4</td>
</tr>
<tr>
<td>ITSE 1307</td>
<td>Introduction to Database</td>
<td>3</td>
</tr>
<tr>
<td>ITNW 1354</td>
<td>Implementing and Supporting Servers</td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences or Government/Political Science or American History</td>
<td>ENGL 1301</td>
<td>Composition I</td>
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Credits 16

Fourth Term

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<tr>
<th>Course</th>
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<td>ITCC 2413</td>
<td>CCNA 4: Connecting Networks</td>
<td>4</td>
</tr>
<tr>
<td>ITSY 1342</td>
<td>Information Technology Security</td>
<td>3</td>
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<tr>
<td>ENGL 2311 or ENGL 1302</td>
<td>Technical and Business Writing or Composition II</td>
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<td>Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)</td>
<td>Select one of the following:</td>
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<tr>
<td>ITSC 2364</td>
<td>Practicum - Computer and Information Sciences, General</td>
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Approved Elective (p. 257)

Credits 16

Total Credits 60

Capstone Experience: ITCC 2413 CCNA 4: Connecting Networks

Approved Electives

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<thead>
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<th>Title</th>
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<tr>
<td>ITNW 1345</td>
<td>Implementing Network Directory Services</td>
<td>3</td>
</tr>
<tr>
<td>ITSE 1307</td>
<td>Introduction to C++ Programming</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 2339</td>
<td>Personal Computer Help Desk</td>
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</tr>
</tbody>
</table>

**Students must be Texas Success Initiative (TSI) complete in order to graduate: Math Level 8
CIT, Network Administration Cisco Specialty, Certificate of Technology

Program Information

Are you interested in the way things work? Have you always wanted to build your own computer? If so, San Jacinto College’s desktop support program can provide you with the skills to become a desktop and laptop computer hardware and software support expert. Our program teaches students to install, maintain, repair, replace, and upgrade computers to set you on course for a fulfilling career in the always booming tech industry.

The San Jacinto College’s network administration program:

• Provides students with the skills necessary to work as computer network service technicians, with an emphasis placed on installing and maintaining network;
• Is designed to provide the student with skills in desktop computer hardware and software support;
• Teaches students to install, maintain, repair, replace, and upgrade desktop computers; and
• Prepares students for industry certifications such as A+, Network+, Security+ and Microsoft Office Specialist (MOS), Microsoft Certified Professional (MCP), and Certified Cisco Network Associate (CCNA).

Career Opportunities

The Associate of Applied Science (AAS) in Desktop Support and Microsoft Networking is an excellent entry point into future studies leading to careers that include:

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• In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.
• In the Simulation and Game Design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.
• The Web application development program prepares students for entry-level positions in website design, development, and administration.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study:
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**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.

**Plan of Study**

All Campuses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
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<tbody>
<tr>
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<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
<td>3</td>
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<tr>
<td>ITCC 1314</td>
<td>CCNA 1: Introduction to Networks</td>
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<tr>
<td>ITSC 1325</td>
<td>Personal Computer Hardware</td>
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<td>ITCC 1440</td>
<td>CCNA 2: Routing and Switching Essentials</td>
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<td>Intermediate PC Operating Systems</td>
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<td>ITNW 1354</td>
<td>Implementing and Supporting Servers</td>
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<td>ITSW 1307</td>
<td>Introduction to Database</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
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<tr>
<td>Third Term</td>
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<tr>
<td>ITCC 2412</td>
<td>CCNA 3: Scaling Networks</td>
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<tr>
<td>ITCC 2413</td>
<td>CCNA 4: Connecting Networks</td>
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<tr>
<td>ITSE 1329</td>
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<tr>
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<td><strong>Total Credits</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

**Capstone Experience:** ITCC 2413 CCNA 4: Connecting Networks

**CIT, Simulation and Game Design, Associate of Applied Science**

Are you a dreamer of worlds? Have you always been interested in playing the game as much as you’re interested in knowing how it was created? If so, a rewarding career in gaming may be in your future. At San Jacinto College, we teach the latest in game design and programming, simulation, level design, engine development, tool building, and multimedia programming. You’ll get your hands on the latest design applications and game engines, including multi-player and multimedia audio and video tools. Are you up to the challenge?

San Jacinto College’s Simulation and Gaming Technology program:

- Is designed for students who are interested in advanced programming areas, such as simulations, game design, game programming, level design, engine development tool building, and multimedia programming;
- Includes in-depth hands-on training with industry standard applications and game engines, as well as multi-player and multimedia (including audio and video) programming, and two semester project classes where students design and implement their own games or simulations; and
- Offers a simulation and game programming certificate program so students can enhance their training beyond the basic application programming certificate or Associate of Applied Science (AAS) degree.

**Additional Information**

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 completing this program’s certificate requirements.

**Career Opportunities**

The Computer Simulation and Gaming Program prepares students for careers as:

- Entry level programmers,
- Game programmers,
Earning Potential
Web developer Median Salary: $74,929 per year

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Plan of Study

### All Campuses

#### 3IT-SGD

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tr>
<td><strong>First Term</strong></td>
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<tr>
<td>GAME 1303</td>
<td>Introduction to Game Design and Development</td>
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<td>INEW 2340</td>
<td>Object-Oriented Design - Game Design</td>
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<td>ITSC 1319</td>
<td>Internet/Web Page Development</td>
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<td>ITSE 1329</td>
<td>Programming Logic and Design</td>
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<td>or COSC 1336</td>
<td>Programming Fundamentals I</td>
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<td>ENGL 1301</td>
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<td>ARTV 1345</td>
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<td>IMED 1341</td>
<td>Interface Design with Photoshop</td>
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<td>GAME 1304</td>
<td>Level Design</td>
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<td>GAME 2341</td>
<td>Game Scripting</td>
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<td>ITSE 1359</td>
<td>Introduction to Scripting Languages</td>
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<td>COSC 2336</td>
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<td>ARTV 1341</td>
<td>3-D Animation I</td>
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<tr>
<td>GAME 2332</td>
<td>Project Development I</td>
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<tr>
<td>ITSE 1333</td>
<td>Mobile Applications Development</td>
<td>3</td>
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<td>MATH 1332</td>
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<td>MATH 1314</td>
<td>College Algebra</td>
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<tr>
<td>Life and Physical Sciences (Natural Science)</td>
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Speech

Credits 3

Fourth Term

GAME 1343 Game and Simulation Programming I 3
or ARTV 2351 or 3-D Animation II
GAME 2359 Game & Simulation Group Project 3
ITSE 2313 Web Authoring 3
or ITSE 2317 or Java Programming
Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts) 3
Social and Behavioral Sciences or Government/Political Science or American History 3

Credits 15

Total Credits 60

Capstone Experience: GAME 2359 Game & Simulation Group Project

**Students must be Texas Success Initiative (TSI) complete in order to graduate: MATH Level 8.

CIT, Simulation and Game Design, Level 2 Certificate

Program Information

Are you a dreamer of worlds? Have you always been interested in playing the game as much as you're interested in knowing how it was created? If so, a rewarding career in gaming may be in your future. At San Jacinto College, we teach the latest in game design and programming, simulation, level design, engine development, tool building, and multimedia programming. You'll get your hands on the latest design applications and game engines, including multi-player and multimedia audio and video tools. Are you up to the challenge?

San Jacinto College’s Simulation and Gaming Technology program:

- Is designed for students who are interested in advanced programming areas, such as simulations, game design, game programming, level design, engine development tool building, and multimedia programming;
- Includes in-depth hands-on training with industry standard applications and game engines, as well as multi-player and multimedia (including audio and video) programming, and two semester project classes where students design and implement their own games or simulations; and
- Offers a simulation and game programming certificate program so students can enhance their training beyond the basic application programming certificate or Associate of Applied Science (AAS) degree.

Additional Information

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 completing this program’s certificate requirements.

Career Opportunities

The Computer Simulation and Gaming Program prepares students for careers as:

- Entry level programmers,
- Game programmers,
- Level designers,
- Assistant game designers,
- Game engine programmers, and
- Software testers.

Earning Potential

Web developer Median Salary: $74,929 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact North campus, 281-998-6150, x7242; or South campus, 281-998-6150, x3502.

Campuses

North Campus
South Campus

Information

The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree course work even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certificates and AAS degrees.

The CIT curriculum provides the graduate with the knowledge and in-demand applied technical skills needed to enter computer-related occupations in the business/industry job market. Certificates and AAS degrees are available in the following areas: Applications Programming, Desktop Support and Microsoft Network Administration, Information Technology Security, Simulation and Game Design, Network Administration Cisco, and Web Applications Development.
The Applications Programming Specialty is for students interested in writing computer programs, both stand-alone and web-based, in languages such as C++ and Java. Emphasis is placed on solving business-related computer problems through programming techniques and procedures, using appropriate languages and software.

In Desktop Support and Microsoft Network Administration, a student can choose between a track with emphasis on computer hardware and software support or one with focus on the installation and maintenance of networks. Students will be exposed to current tools and techniques for implementing solutions for customers in network environments.

The Simulation and Game Design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.

In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.

The Web application development program prepares students for entry-level positions in website design, development, and administration.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study: beginning network administration, Cisco, and advanced information technology security. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry 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, students desiring a bachelor’s degree in Computer Science are 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 year colleges and universities, students desiring a bachelor’s degree in Computer Science are 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 Computer Science Field of Study located elsewhere in the catalog may also be appropriate.

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.

Plan of Study

All Campuses
5IT-SGD

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>First Term</td>
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<tr>
<td>GAME 1303</td>
<td>Introduction to Game Design and Development</td>
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<tr>
<td>INEW 2340</td>
<td>Object-Oriented Design - Game Design</td>
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<td>ITSC 1319</td>
<td>Internet/Web Page Development</td>
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<td>ITSE 1329 Programming Logic and Design</td>
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<td>or COSC 1336 or Programming Fundamentals I</td>
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<td>COSC 1337 Programming Fundamentals II</td>
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<td>ARTV 1345 3-D Modeling and Rendering</td>
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<td>Second Term</td>
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<tr>
<td>IMED 1341</td>
<td>Interface Design with Photoshop</td>
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<td>GAME 1304</td>
<td>Level Design</td>
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<td>Game Scripting</td>
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<td>Introduction to Scripting Languages</td>
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<td>Third Term</td>
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<td>GAME 2332</td>
<td>Project Development I</td>
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<td>ITSE 1333</td>
<td>Mobile Applications Development</td>
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<td>GAME 1343</td>
<td>Game and Simulation Programming I</td>
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<td>Game and Simulation Programming II</td>
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<tr>
<td>or 3-D Animation II</td>
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<td>Fourth Term</td>
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<td>ITSE 2313</td>
<td>Web Authoring</td>
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<tr>
<td>or ITSE 2317</td>
<td>or Java Programming</td>
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<td>GAME 2359</td>
<td>Game &amp; Simulation Group Project</td>
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</table>
| Capstone Experience: GAME 2359 Game & Simulation Group Project

CIT, Web Applications Development Specialty, Associate of Applied Science

Program Information

Are you intrigued by the internet? Do you want to design fantastic websites? If so, San Jacinto College’s web application program might be the right path for you! With a focus on web technologies such as PHP, SQL, JavaScript, and XML, our program teaches students the necessary skills to work in the challenging field of web site creation with a primary focus on programming concepts and web site security.

At San Jacinto College our web page programming curriculum:

- Is designed to provide the student with basic web applications development skills;
- Places emphasis on designing web applications to communicate with data sources and business systems;
- Will train students to understand how web pages connect to data sources and back-end data servers; and
- Offers two paths: The web applications development certificate of technology is designed for students who desire to earn their credential after three semesters of study. All courses required for this
AAS degrees are available in the following areas: Applications programming, Desktop Support and Microsoft Network Administration, or Associate of Applied Science (AAS) degree.

### Additional Information

Note for transfer students: Some of the courses for this degree will be accepted for transfer to certain colleges/universities. Students are encouraged to check with a counselor for details on course transferability. San Jacinto College offers two courses of study in this area that include computer information technology and computer science.

### Career Opportunities

An AAS degree or certificate of technology prepares students for a career as a:

- Webmaster,
- Web specialist,
- Web applications developer,
- Web designer, or
- Mobile apps developer.

### Earning Potential

Web developer Median Salary: $72,018 per year[^1]

[^1]: Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-998-6150, x7242

### Campus

North Campus

### Information

The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree coursework even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certificates and AAS degrees.

The CIT curriculum provides the graduate with the knowledge and in-demand applied technical skills needed to enter computer-related occupations in the business/industry job market. Certificates and AAS degrees are available in the following areas: Applications Programming, Desktop Support and Microsoft Network Administration, Information Technology Security, Simulation and Game Design, Network Administration Cisco, and Web Applications Development.

- The Applications Programming Specialty is for students interested in writing computer programs, both stand-alone and web-based, in languages such as C++ and Java. Emphasis is placed on solving business-related computer problems through programming techniques and procedures, using appropriate languages and software.
- In Desktop Support and Microsoft Network Administration, a student can choose between a track with emphasis on computer hardware and software support or one with focus on the installation and maintenance of networks. Students will be exposed to current tools and techniques for implementing solutions for customers in network environments.
- The Simulation and Game Design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.
- In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.
- The Web application development program prepares students for entry-level positions in website design, development, and administration.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study: beginning network administration, Cisco, and advanced information technology security. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry 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, students desiring a bachelor’s degree in Computer Science are 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 Computer Science Field of Study located elsewhere in the catalog may also be appropriate.

### 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.

### Associate of Applied Science Degree

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.

### Plan of Study

#### All Campuses

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>ITSW 1307</td>
<td>Introduction to Database</td>
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<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
<td>3</td>
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<tr>
<td>ITNW 1325</td>
<td>Fundamentals of Networking Technologies or ITCC 1314</td>
<td>3</td>
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<tr>
<td>or CCNA 1: Introduction to Networks</td>
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<td>ITSC 1319</td>
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<td>Speech</td>
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Credits 15
Second Term

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<td>IMED 1341</td>
<td>Interface Design with Photoshop</td>
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<td>Introduction to PC Operating Systems</td>
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<td>ITSE 1359</td>
<td>Introduction to Scripting Languages</td>
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<td>MATH 1332</td>
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<tr>
<td>MATH 1314</td>
<td>College Algebra (or higher)</td>
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<td>ITSE 1345</td>
<td>Web Applications Development</td>
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Third Term

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<tr>
<td>IMED 1316</td>
<td>Web Page Design I</td>
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<tr>
<td>IMED 2311</td>
<td>Web Portfolio Development</td>
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<td>ITSE 1333</td>
<td>Mobile Applications Development</td>
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<td>ENGL 1301</td>
<td>Composition I</td>
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<td>Social and Behavioral Sciences or Government/Political Science or American History</td>
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| Credits  | 15 |

Fourth Term

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<td>ITSE 1345</td>
<td>Introduction to Oracle SQL</td>
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<td>ITSC 1342</td>
<td>Information Technology Security</td>
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<td>ITSC 2364</td>
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<tr>
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| Credits  | 15 |

| Total Credits  | 60 |

Capstone Experience: IMED 2311 Web Portfolio Development

Approved Electives

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<td>GAME 1303</td>
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</tr>
<tr>
<td>ITSC 1307</td>
<td>UNIX Operating System I</td>
<td>3</td>
</tr>
<tr>
<td>ITSE 1345</td>
<td>Introduction to Oracle SQL</td>
<td>3</td>
</tr>
</tbody>
</table>

**Students must be Texas Success Initiative (TSI) complete in order to graduate: Math level 8.

CIT, Web Applications Development Specialty, Certificate of Technology Program Information

Are you intrigued by the internet? Do you want to design fantastic web sites? If so, San Jacinto College’s web application program might be the right path for you! With a focus on web technologies such as PHP, SQL, JavaScript, and XML, our program teaches students the necessary skills to work in the challenging field of web site creation with a primary focus on programming concepts and web site security.

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- Places on emphasis on designing web applications to communicate with data sources and business systems;
- Will train students to understand how web pages connect to data sources and back-end data servers; and
- Offers two paths: The web applications development certificate of technology is designed for students who desire to earn their credential after three semesters of study. All courses required for this certificate will also apply toward the Web Applications Development Specialty Associate of Applied Science (AAS) degree.

Additional Information

Note for transfer students: Some of the courses for this degree will be accepted for transfer to certain colleges/universities. Students are encouraged to check with a counselor for details on course transferability. San Jacinto College offers two courses of study in this area that include computer information technology and computer science.

Career Opportunities

An AAS degree or certificate of technology prepares students for a career as a:
- Webmaster,
- Web specialist,
- Web applications developer,
- Web designer, or
- Mobile apps developer.

Earning Potential

Web developer Median Salary: $72,018 per year

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-998-6150, x7242

Campus

North Campus

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**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.

**Certificate of Technology**

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.

**Plan of Study**

**All Campuses**

4IT-WBDV

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>First Term</td>
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<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
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</tr>
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<td>ITSC 1319</td>
<td>Internet/Web Page Development</td>
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</tr>
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<td>3</td>
</tr>
<tr>
<td>ITNW 1325</td>
<td>Fundamentals of Networking Technologies or CCNA 1: Introduction to Networks</td>
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<tr>
<td>Second Term</td>
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<td>IMED 1341</td>
<td>Interface Design with Photoshop</td>
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<td>ITSE 1359</td>
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<td>Third Term</td>
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<td>IMED 2311</td>
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<td>ITSE 1333</td>
<td>Mobile Applications Development</td>
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**Capstone Experience:** IMED 2311 Web Portfolio Development

**Approved Electives**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME 1303</td>
<td>Introduction to Game Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1307</td>
<td>UNIX Operating System I</td>
<td>3</td>
</tr>
</tbody>
</table>

**CIT, Web Page Design and Implementation Specialty, Certificate of Technology**

**Program Information**

Are you intrigued by the internet? Do you want to design fantastic websites? If so, San Jacinto College’s web application program might be the right path for you! With a focus on web technologies such as PHP, SQL, JavaScript, and XML, our program teaches students the necessary skills to work in the challenging field of website creation with a primary focus on programming concepts and website security.
At San Jacinto College our web page programming curriculum:

- Is designed to provide the student with basic web applications development skills;
- Places emphasis on designing web applications to communicate with data sources and business systems;
- Will train students to understand how web pages connect to data sources and back-end data servers; and
- Offers two paths: The web applications development certificate of technology is designed for students who desire to earn their credential after three semesters of study. All courses required for this certificate will also apply toward the Web Applications Development Specialty Associate of Applied Science (AAS) degree.

Additional Information

Note for transfer students: Some of the courses for this degree will be accepted for transfer to certain colleges/universities. Students are encouraged to check with a counselor for details on course transferability. San Jacinto College offers two courses of study in this area that include computer information technology and computer science.

Career Opportunities

An AAS degree or certificate of technology prepares students for a career as a:

- Webmaster,
- Web specialist,
- Web applications developer,
- Web designer, or
- Mobile apps developer.

Earning Potential

Web developer Median Salary: $72,018 per year

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact 281-998-6150, x7242

Campus

North Campus

Information

The Computer Information Technology program is designed primarily for students seeking an occupational certificate, certificate of technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most certificates in less than one year and degrees in as little as two years. For those students who have already fulfilled general education requirements, it may be possible to finish degree coursework even sooner. It is generally recommended that students complete the 21 credit hour computer information technology (CIT) foundations occupational certificate before continuing into a certificate of technology or AAS degree. Most courses in this occupational certificate will apply toward the other CIT certificates and AAS degrees.

The CIT curriculum provides the graduate with the knowledge and in-demand applied technical skills needed to enter computer-related occupations in the business/industry job market. Certificates and AAS degrees are available in the following areas: Applications Programming, Desktop Support and Microsoft Network Administration, Information Technology Security, Simulation and Game Design, Network Administration Cisco, and Web Applications Development.

- The Applications Programming Specialty is for students interested in writing computer programs, both stand-alone and web-based, in languages such as C++ and Java. Emphasis is placed on solving business-related computer problems through programming techniques and procedures, using appropriate languages and software.
- In Desktop Support and Microsoft Network Administration, a student can choose between a track with emphasis on computer hardware and software support or one with focus on the installation and maintenance of networks. Students will be exposed to current tools and techniques for implementing solutions for customers in network environments.
- The Simulation and Game Design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.
- In the Network Administration Cisco specialty, emphasis is on the design, implementation, and administration of local and wide area router networks.
- The Web application development program prepares students for entry-level positions in website design, development, and administration.

The CIT industry certification program is intended for students with industry experience in one or more of the following areas of study: beginning network administration, Cisco, and advanced information technology security. These certificates enable students to supplement their current job skills and obtain industry certifications, if desired. Each industry 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, students desiring a bachelor's degree in Computer Science are 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 Computer Science Field of Study located elsewhere in the catalog may also be appropriate.

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.

Certificate of Technology

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.
Plan of Study

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITSC 1319</td>
<td>Internet/Web Page Development</td>
<td>3</td>
</tr>
<tr>
<td>IMED 1301</td>
<td>Introduction to Digital Media</td>
<td>3</td>
</tr>
<tr>
<td>ARTC 1325</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Credits</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ITSE 1359</td>
<td>Introduction to Scripting Languages</td>
<td>3</td>
</tr>
<tr>
<td>ITSE 2313</td>
<td>Web Authoring</td>
<td>3</td>
</tr>
<tr>
<td>IMED 1316</td>
<td>Web Page Design I</td>
<td>3</td>
</tr>
<tr>
<td>IMED 1341</td>
<td>Interface Design with Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>ARTV 1303</td>
<td>Basic Animation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or ARTV 1351 or Digital Video</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Credits</strong></td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMED 2311</td>
<td>Web Portfolio Development</td>
<td>3</td>
</tr>
<tr>
<td>IMED 2315</td>
<td>Web Page Design II</td>
<td>3</td>
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<tr>
<td>ITSE 1333</td>
<td>Mobile Applications Development</td>
<td>3</td>
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<td></td>
<td><strong>Credits</strong></td>
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<td></td>
<td><strong>Total Credits</strong></td>
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</tr>
</tbody>
</table>

**Capstone Experience:** IMED 2311 Web Portfolio Development

**Computer Science, Associate of Science**

**Get an Exciting Job in the Tech Industry**

Are you good in math and science and want to know how computer systems work? Have you ever wondered how computers store data, or how artificial intelligence helps find Internet information faster or makes games better or how computers have changed society? Would you like to learn how to write your own programs and applications?

San Jacinto College's Associate of Science (AS) in Computer Science may be the right program for you! It is designed to prepare graduates for transfer to universities to complete computer information system or computer science bachelor's degrees.

Students also may seek an occupational certificate, certificate of technology, or an Associate of Applied Science(AAS) in Application Programming.

Other computer-related areas of study include Website Applications Development, Desktop Support and Microsoft Networking, Cisco Networking, and Information Technology Security.

Some of the programming courses will be accepted for transfer to certain schools, but please check with an educational planner for more details on course transferability.

**Career Opportunities**

- Artificial Intelligence
- Computer Architecture & Engineering
- Database Management Systems
- Graphics Systems
- Human-Computer Interaction
- Operating Systems & Networking
- Programming Systems
- Scientific Computing
- Security

**Earning Potential**

- Software developer (applications) - $105,160
- Software developer (systems software) - $105,333
- Database administrator - $79,266
- Computer hardware engineer - $110,021
- Computer systems analyst - $98,628
- Web developer - $70,180
- Information security analyst - $101,338
- Computer programmer - $81,014
- Computer and information systems managers - $157,226

Source: [www.texaswages.com](http://www.texaswages.com) 2017 annual median salaries, Gulf Coast region

The Associate of Science (AS) degree 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, or computer science. For more information, students may refer to the Core Curriculum and Field of Study sections of the catalog. The AS degree differs from an Associate of Arts (AA) degree in the amount or level of mathematics and science required for degree completion. The College requires a minimum of 12 hours of mathematics, 12 hours in science, or 12 hours in computer sciences beyond the core requirement for the degree. Please note the Field of Study AS degree options contain state-required courses recommended for the degree.

Students seeking an AS 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 toward a science major.

Students choosing to pursue an AS degree should select from among life science, physical science, computer science, or mathematics. However, courses designed for non-majors (BIOL 1308 Biology for Non-Science Majors I (lecture)/BIOL 1108 Biology for Non-Science Majors I (lab),
BIOL 1309 Biology for Non-Science Majors II (lecture)/BIOL 1109 Biology for Non-Science Majors II (lab), CHEM 1305 Introductory Chemistry I (lecture)/CHEM 1105 Introductory Chemistry I (lab), and GEOL 1301 Earth Science (lecture)/GEOL 1101 Earth Science (lab) do not apply to an AS degree. The College recommends these courses for the AA degrees.

All Campuses

**2COSCI**

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<thead>
<tr>
<th>Code</th>
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<tr>
<td>COSC 1336 &amp; COSC 1337</td>
<td>Programming Fundamentals I and Programming Fundamentals II</td>
<td>6</td>
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<tr>
<td>COSC 2336</td>
<td>Programming Fundamentals III</td>
<td></td>
</tr>
<tr>
<td>COSC 2325</td>
<td>Computer Organization</td>
<td></td>
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<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 2414</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>PHYS 2325</td>
<td>University Physics I (lecture)</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 2125</td>
<td>University Physics I (lab)</td>
<td></td>
</tr>
<tr>
<td>PHYS 2326</td>
<td>University Physics II (lecture)</td>
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</tr>
<tr>
<td>&amp; PHYS 2126</td>
<td>University Physics II (lab)</td>
<td></td>
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</tbody>
</table>

**Total Credits**  
12

**Code**  
**Title**  
**Credits**

**Institutional Option**  
Select one of the following:  
3
- EDUC 1300 Learning Framework
- PSYC 1300 Learning Framework
- Academic elective (if successfully completed GUST 0305)

Select one of the following:  
3
- BCIS 1305 Business Computer Applications
- ITSC 1309 Integrated Software Applications I
- Academic elective (if student passes the computer literacy exam)

**Communications**  
Select two of the following:  
6
- ENGL 1301 Composition I (required)
- ENGL 1302 Composition II
- ENGL 2311 Technical and Business Writing

**Mathematics**  
Select one of the following:  
3
- MATH 1314 College Algebra
- MATH 1316 Plane Trigonometry
- MATH 1324 Mathematics for Business and Social Sciences
- MATH 1325 Calculus for Business and Social Sciences
- MATH 1332 Contemporary Mathematics (Quantitative Reasoning)
- MATH 1342 Elementary Statistical Methods (Statistics)
- MATH 2318 Linear Algebra
- MATH 2320 Differential Equations
- MATH 2412 Pre-Calculus Math
- MATH 2413 Calculus I
- MATH 2414 Calculus II

**Life and Physical Sciences (Natural Science)**  
Select two of the following:  
6
- ASTR 1303 Stars and Galaxies (lecture)
- ASTR 1304 The Solar System (lecture)
- BIOL 1306 Biology for Science Majors I (lecture)
- BIOL 1307 Biology for Science Majors II (lecture)
- BIOL 1311 General Botany
- BIOL 1313 General Zoology (lecture)
- CHEM 1311 General Chemistry I (lecture)
- CHEM 1312 General Chemistry II (lecture)
- GEOL 1304 Historical Geology (lecture)
- GEOL 1305 Environmental Science (lecture)
- PHYS 1301 College Physics I (lecture)
- PHYS 1302 College Physics II (lecture)
- PHYS 2325 University Physics I (lecture)
- PHYS 2326 University Physics II (lecture)

**Language, Philosophy, and Culture (Humanities)**  
Select one of the following:  
3
- ENGL 2322 British Literature I
- ENGL 2323 British Literature II
- ENGL 2327 American Literature I
- ENGL 2328 American Literature II
- ENGL 2332 World Literature I
- ENGL 2333 World Literature II
- ENGL 2341 Forms of Literature: Literature and Film
- ENGL 2351 Mexican American Literature
- GEOG 1302 Human Geography
- HIST 2321 World Civilization I
- HIST 2322 World Civilization II
- HUMA 1301 Introduction to the Humanities I
- PHI 1301 Introduction to Philosophy
- PHI 2306 Introduction to Ethics

**Creative Arts (Fine Arts)**  
Select one of the following:  
3
- ARTS 1301 Art Appreciation
- ARTS 1303 Art History I (Prehistoric to the 14th century)
- ARTS 1304 Art History II (14th century to the present)
- DANC 2303 Dance Appreciation
- DRAM 1310 Introduction to Theater
- DRAM 2366 Introduction to Cinema: Film Appreciation I
- MUSI 1306 Music Appreciation
- MUSI 1307 Music Literature
- MUSI 1310 American Music

**American History**  
Select two of the following:  
6
- HIST 1301 United States History I
- HIST 1302 United States History II
- HIST 2301 Texas History
- HIST 2327 Mexican American History I
- HIST 2328 Mexican American History II

**Government/Political Science**  
Select two of the following:  
6
- GOVT 2305 Federal Government (Federal Constitution and Topics)
GOVT 2306 Texas Government (Texas Constitution and Topics) 3

Social and Behavioral Sciences
Select one of the following: 3
ANTH 2302 Introduction to Archaeology
ANTH 2346 General Anthropology
ANTH 2351 Cultural Anthropology
ECON 2301 Principles of Macroeconomics
ECON 2302 Principles of Microeconomics
GEOG 1303 World Regional Geography
GOVT 2304 Introduction to Political Science
HIST 2311 Western Civilization I
HIST 2312 Western Civilization II
PSYC 2301 General Psychology
SOCI 1301 Introduction to Sociology
SOCI 2319 Minority Studies I

Component Area Option
Select two of the following: 6
SPCH 1311 Introduction to Speech Communication
SPCH 1315 Public Speaking
SPCH 1318 Interpersonal Communication
SPCH 1321 Business and Professional Speech
PHED 1164 Introduction to Physical Fitness and Wellness
CHIN 1411 Beginning Chinese I
CHIN 1412 Beginning Chinese II
FREN 1411 Beginning French I
FREN 1412 Beginning French II
GERM 1411 Beginning German I
GERM 1412 Beginning German II
SGNL 1401 Beginning American Sign Language I
SGNL 1402 Beginning American Sign Language II
SPAN 1411 Beginning Spanish I
SPAN 1412 Beginning Spanish II

Total Credits 48

1 MATH 1324 Mathematics for Business and Social Sciences, MATH 1325 Calculus for Business and Social Sciences, and MATH 1332 Contemporary Mathematics (Quantitative Reasoning) are not recommended for students pursuing mathematics or science.
2 Students must be simultaneously co-enrolled in the co-requisite science lab.
3 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.
4 2 SCH in this option include the labs for science courses.

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 plan Core Curriculum courses that would meet baccalaureate degree requirements at the four-year institution.

Engineering Design Graphics
Architectural/Civil/Structural Specialty, Associate of Applied Science

Program Information
All successful projects start with a good plan. For architects, engineering designers, CAD drafters, and builders, that plan comes in the form of working drawings produced by technically talented and well-trained individuals. If you have a desire to express your knowledge through computer aided design software, San Jacinto College can give you the skills you need to make your way into this exciting field. This degree allows you to pursue careers that strike a satisfying balance between creativity, technical proficiency, and attention to detail. You can make yourself an indispensable asset in a variety of fields, such as architecture, manufacturing, engineering, construction, and the oil and gas industry, with a degree in engineering design graphics.

The Engineering Design Graphics program at San Jacinto College:

- Trains students to translate the ideas of designers, engineers, and architects from rough sketches, design layouts, specifications, and calculations into working drawings, maps, plans, illustrations, and 3D models;
- Offers students the skills needed to prepare technical drawings and/or 3D models using Computer Aided Drafting (CAD), design, and 3D modeling software; and
- Offers degree plans in three areas:
  a. Architectural/Civil/Structural,
  b. Mechanical, and
  c. Petro/Industrial.

Career Opportunities
Growth in Houston's diversified job markets has created employment openings for drafters. Career opportunities for drafters are available in:

- Architecture;
- Engineering: Electrical, Instrumentation, Structural, Civil;
- Manufacturing;
Earning Potential

Mechanical drafter median salary: $67,474 per year

Source: texaswages.com, Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1841; North campus, 281-998-6150, x7765; and South campus, 281-998-6150, x3587.

Campuses

Central Campus
North Campus
South Campus

Information

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 (AAS) degree options. Working with local industry, courses have been clustered into specialty disciplines which provide concentration in specific areas of study. They include: Architectural/Civil/Structural, Mechanical and Petro/Industrial.

Plan of Study

All Campuses

3DFT-A

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>First Term</td>
<td></td>
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</tr>
<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>Language, Philosophy, and Culture (Humanities) or Creative Arts (Fine Arts)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
<td>3</td>
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<td></td>
<td>Credits</td>
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<tr>
<td>Second Term</td>
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<tr>
<td>DFTG 1417</td>
<td>Architectural Drafting-Residential</td>
<td>4</td>
</tr>
<tr>
<td>ARCE 1421</td>
<td>Architectural Illustration</td>
<td>4</td>
</tr>
<tr>
<td>DFTG 2317</td>
<td>Descriptive Geometry</td>
<td>3</td>
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<tr>
<td>Speech</td>
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Summer Year One Term

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<tr>
<td>DFTG 2421</td>
<td>Topographic Drafting</td>
<td>4</td>
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<tr>
<td>DFTG 2428</td>
<td>Architectural Drafting-Commercial</td>
<td>4</td>
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<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher)</td>
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<tr>
<td>or MATH 1314</td>
<td>or College Algebra</td>
<td>3</td>
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<td></td>
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Fourth Term

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<tr>
<td>ARCE 1415</td>
<td>Structural Steel Detailing</td>
<td>4</td>
</tr>
<tr>
<td>DFTG 2430</td>
<td>Civil Drafting</td>
<td>4</td>
</tr>
<tr>
<td>DFTG 2431</td>
<td>Advanced Technologies in Architectural Design and Drafting</td>
<td>4</td>
</tr>
<tr>
<td>DFTG 2386 or DFTG 2338</td>
<td>Internship-Drafting and Design Technology/Technician</td>
<td>3</td>
</tr>
<tr>
<td>or Final Project - Advanced Drafting</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Credits</td>
<td>15</td>
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</tbody>
</table>

Total Credits 60

Capstone Experience: DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting

The course selected to satisfy the Capstone Experience (DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting) can only be taken during or after the term in which the last required and elective engineering design graphics courses are completed.

Courses may be applied to earn the certificate of technology, then the level 2 certificate, and finally the Associate of Applied Science (AAS) degree when the courses are in the same specialty discipline.

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.

Engineering Design Graphics Architectural/Civil/Structural Specialty, Certificate of Technology

San Jacinto College 2019-2020
Program Information
All successful projects start with a good plan. For architects, engineering designers, CAD drafters, and builders, that plan comes in the form of working drawings produced by technically talented and well-trained individuals. If you have a desire to express your knowledge through computer aided design software, San Jacinto College can give you the skills you need to make your way into this exciting field. This degree allows you to pursue careers that strike a satisfying balance between creativity, technical proficiency, and attention to detail. You can make yourself an indispensable asset in a variety of fields, such as architecture, manufacturing, engineering, construction, and the oil and gas industry, with a degree in engineering design graphics.

The Engineering Design Graphics program at San Jacinto College:
- Trains students to translate the ideas of designers, engineers, and architects from rough sketches, design layouts, specifications, and calculations into working drawings, maps, plans, illustrations, and 3D models;
- Offers students the skills needed to prepare technical drawings and/or 3D models using Computer Aided Drafting (CAD), design, and 3D modeling software; and
- Offers degree plans in three areas:
  a. Architectural/Civil/Structural,
  b. Mechanical, and
  c. Petro/Industrial.

Career Opportunities
Growth in Houston’s diversified job markets has created employment openings for drafters. Career opportunities for drafters are available in:
- Architecture;
- Engineering: Electrical, Instrumentation, Structural, Civil;
- Manufacturing;
- Oil, Energy, and Petrochemical; and
- Public Works.

Earning Potential
Mechanical drafter median salary: $67,474 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1841; North campus, 281-998-6150, x7765; and South campus, 281-998-6150, x3587.

Campuses
Central Campus
North Campus
South Campus

Information
A certificate of technology focuses on 41 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:
1. Architectural/Civil/Structural,
2. Mechanical, and
3. Petro-Industrial.

Plan of Study
All Campuses
4DFT-A

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<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>
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<table>
<thead>
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<th>Credits</th>
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<table>
<thead>
<tr>
<th>Second Term</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ARCE 1421</td>
<td>4</td>
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<td>DFTG 1417</td>
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<tr>
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<td>DFTG 2421</td>
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<td>DFTG 2428</td>
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<td>DFTG 2431</td>
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<tr>
<td>DFTG 2386 or DFTG 2338</td>
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Total Credits 41

Capstone Experience:1 DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting

1 The course selected to satisfy the Capstone Experience (DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting) 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.
Engineering Design Graphics
Architectural/Civil/Structural Specialty, Level 2 Certificate

Program Information
All successful projects start with a good plan. For architects, engineering designers, CAD drafters, and builders, that plan comes in the form of working drawings produced by technically talented and well-trained individuals. If you have a desire to express your knowledge through computer aided design software, San Jacinto College can give you the skills you need to make your way into this exciting field. This degree allows you to pursue careers that strike a satisfying balance between creativity, technical proficiency, and attention to detail. You can make yourself an indispensable asset in a variety of fields, such as architecture, manufacturing, engineering, construction, and the oil and gas industry, with a degree in engineering design graphics.

The Engineering Design Graphics program at San Jacinto College:

• Trains students to translate the ideas of designers, engineers, and architects from rough sketches, design layouts, specifications, and calculations into working drawings, maps, plans, illustrations, and 3D models;
• Offers students the skills needed to prepare technical drawings and/or 3D models using Computer Aided Drafting (CAD), design, and 3D modeling software; and
• Offers degree plans in three areas:
  a. Architectural/Civil/Structural,
  b. Mechanical, and
  c. Petro/Industrial.

Career Opportunities
Growth in Houston’s diversified job markets has created employment openings for drafters. Career opportunities for drafters are available in:

• Architecture;
• Engineering: Electrical, Instrumentation, Structural, Civil;
• Manufacturing;
• Oil, Energy, and Petrochemical; and
• Public Works.

Earning Potential
Mechanical drafter median salary: $67,474 per year¹

¹ Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1841; North campus, 281-998-6150, x7765; and South campus, 281-998-6150, x3587.

Campuses
Central Campus
North Campus
South Campus

Information
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 coursework, three (3) semester credit hours of mathematics, and three (3) semester credit hours of Speech. This is a fast-track award for those wishing to concentrate their studies in EDG and enter the job market as soon as possible.

Plan of Study
All Campuses
5DFT-A

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<td>Technical Drafting</td>
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<td>Basic Computer-Aided Drafting</td>
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<td>Speech</td>
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<td>Architectural Drafting-Residential</td>
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<td>DFTG 2317</td>
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<td>Architectural Drafting-Commercial</td>
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<td>MATH 1332</td>
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<td>Civil Drafting</td>
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<td>Advanced Technologies in Architectural Design and Drafting</td>
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<td>DFTG 2386</td>
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<td>or DFTG 2338</td>
<td>or Final Project - Advanced Drafting</td>
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Total Credits
51
Capstone Experience: The course selected to satisfy the Capstone Experience (DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting) can only be taken during or after, the term in which the last required and elective engineering design graphics course are completed.

Courses may be applied to earn the certificate of technology, then the level 2 certificate, and finally the Associate of Applied Science (AAS) degree when the courses are in the same specialty discipline.

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.

Engineering Design Graphics Mechanical Specialty, Associate of Applied Science

Program Information

All successful projects start with a good plan. For architects, engineering designers, CAD drafters, and builders, that plan comes in the form of working drawings produced by technically talented and well-trained individuals. If you have a desire to express your knowledge through computer aided design software, San Jacinto College can give you the skills you need to make your way into this exciting field. This degree allows you to pursue careers that strike a satisfying balance between creativity, technical proficiency, and attention to detail. You can make yourself an indispensable asset in a variety of fields, such as architecture, manufacturing, engineering, construction, and the oil and gas industry, with a degree in engineering design graphics.

The Engineering Design Graphics (EDG) program at San Jacinto College:

- Trains students to translate the ideas of designers, engineers and architects from rough sketches, design layouts, specifications, and calculations into working drawings, maps, plans, illustrations, and 3D models;
- Offers students the skills needed to prepare technical drawings and/or 3D models using Computer Aided Drafting (CAD), design, and 3D modeling software; and
- Offers degree plans in three areas:
  a. Architectural/Civil/Structural
  b. Mechanical
  c. Petro/Industrial

Career Opportunities

Growth in Houston's diversified job markets has created employment openings for drafters. Career opportunities for drafters are available in:

- Architecture
- Engineering: Electrical, Instrumentation, Structural, Civil
- Manufacturing
- Oil, Energy, and Petrochemical
- Public Works

Earning Potential

Mechanical drafter median salary: $67,474 per year

Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1841; North campus, 281-998-6150, x7765; and South campus, 281-998-6150, x3587.

Campuses

Central Campus
North Campus
South Campus

Information

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 (AAS) degree options. Working with local industry, courses have been clustered into specialty disciplines which provide concentration in specific areas of study. They include: Architectural/Civil/Structural, Mechanical and Petro/Industrial.

Plan of Study

All Campuses

3DFT-M

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>First Term</td>
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<td>DFTG 1409 Basic Computer-Aided Drafting</td>
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**Second Term**

| DFTG 1433 | Mechanical Drafting | 4 |
| DFTG 1445 | Parametric Modeling and Design | 4 |
| DFTG 2317 | Descriptive Geometry | 3 |
| DFTG 2440 | Solid Modeling/Design | 4 |

**Credits** 13

**Summer Year One Term**

| Speech | 3 |

**Third Term**

| DFTG 2402 | Machine Drafting | 4 |
| DFTG 2406 | Machine Design | 4 |
| DFTG 2450 | Geometric Dimensioning and Tolerancing | 4 |
| MATH 1332 or MATH 1314 | Contemporary Mathematics (Quantitative Reasoning) (or higher) or College Algebra | 3 |

**Credits** 15

**Fourth Term**

| DFTG 2435 | Advanced Technologies in Mechanical Design and Drafting | 4 |
| DFTG 2458 | Advanced Machine Design | 4 |
| DFTG 2386 or DFTG 2338 | Internship-Drafting and Design Technology/Technician | 3 |
| Social and Behavioral Sciences or Government/Political Science or American History | 3 |

**Credits** 14

**Total Credits** 60

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### Program Information

All successful projects start with a good plan. For architects, engineering designers, CAD drafters, and builders, that plan comes in the form of working drawings produced by technically talented and well-trained individuals. If you have a desire to express your knowledge through computer aided design software, San Jacinto College can give you the skills you need to make your way into this exciting field. This degree allows you to pursue careers that strike a satisfying balance between creativity, technical proficiency, and attention to detail. You can make yourself an indispensable asset in a variety of fields, such as architecture, manufacturing, engineering, construction, and the oil and gas industry, with a degree in engineering design graphics.

The Engineering Design Graphics (EDG) program at San Jacinto College:

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- Offers degree plans in three areas:
  - a. Architectural/Civil/Structural
  - b. Mechanical
  - c. Petro/Industrial

### Career Opportunities

Growth in Houston's diversified job markets has created employment openings for drafters. Career opportunities for drafters are available in:

- Architecture
- Engineering: Electrical, Instrumentation, Structural, Civil
- Manufacturing
- Oil, Energy, and Petrochemical
- Public Works

### Earning Potential

Mechanical drafter median salary: $67,474 per year

---

Courses may be applied to earn the certificate of technology, then the level 2 certificate, and finally the Associate of Applied Science (AAS) degree when the courses are in the same specialty discipline.

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.
Source: texswages.com, Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1841; North campus, 281-998-6150, x7765; and South campus, 281-998-6150, x3587.

Campuses
Central Campus
North Campus
South Campus

Information
A certificate of technology focuses on 41 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:

1. Architectural/Civil/Structural,
2. Mechanical, and
3. Petro-Industrial.

Plan of Study
All Campuses
4DFT-M

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<td>Advanced Machine Design</td>
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Capstone Experience: The course selected to satisfy the Capstone Experience (DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting) 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.

Engineering Design Graphics
Mechanical Specialty, Level 2 Certificate

Program Information
All successful projects start with a good plan. For architects, engineering designers, CAD drafters, and builders, that plan comes in the form of working drawings produced by technically talented and well-trained individuals. If you have a desire to express your knowledge through computer aided design software, San Jacinto College can give you the skills you need to make your way into this exciting field. This degree allows you to pursue careers that strike a satisfying balance between creativity, technical proficiency, and attention to detail. You can make yourself an indispensable asset in a variety of fields, such as architecture, manufacturing, engineering, construction, and the oil and gas industry, with a degree in engineering design graphics.

The Engineering Design Graphics (EDG) program at San Jacinto College:

- Trains students to translate the ideas of designers, engineers and architects from rough sketches, design layouts, specifications, and calculations into working drawings, maps, plans, illustrations, and 3D models;
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- Offers degree plans in three areas:
  a. Architectural/Civil/Structural
  b. Mechanical
  c. Petro/Industrial

Career Opportunities
Growth in Houston's diversified job markets has created employment openings for drafters. Career opportunities for drafters are available in:
• Architecture
• Engineering: Electrical, Instrumentation, Structural, Civil
• Manufacturing
• Oil, Energy, and Petrochemical
• Public Works

Earning Potential

Mechanical drafter median salary: $67,474 per year

Source: texaswages.com, Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1841; North campus, 281-998-6150, x7765; and South campus, 281-998-6150, x3587.

Campuses

Central Campus
North Campus
South Campus

Information

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 coursework, three (3) semester credit hours of mathematics, and three (3) semester credit hours of Speech. This is a fast-track award for those wishing to concentrate their studies in EDG and enter the job market as soon as possible.

Plan of Study

All Campuses
5DFT-M

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Credits 10

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<td>Parametric Modeling and Design</td>
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<td>DFTG 2317</td>
<td>Descriptive Geometry</td>
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<td>DFTG 2440</td>
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Credits 15

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<td>DFTG 2402</td>
<td>Machine Drafting</td>
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<td>DFTG 2406</td>
<td>Machine Design</td>
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<tr>
<td>DFTG 2450</td>
<td>Geometric Dimensioning and Tolerancing</td>
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<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher)</td>
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<td>or MATH 1314</td>
<td>or College Algebra</td>
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Credits 15

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<td>DFTG 2435</td>
<td>Advanced Technologies in Mechanical Design and Drafting</td>
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<td>DFTG 2458</td>
<td>Advanced Machine Design</td>
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<td>DFTG 2386 or DFTG 2338</td>
<td>Internship-Drafting and Design Technology/Technician or Final Project - Advanced Drafting</td>
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Credits 11

Total Credits 51

Capstone Experience:

The course selected to satisfy the Capstone Experience (DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting) can only be taken during, or after, the term in which the last required and elective Engineering Design Graphics courses are completed.

Courses may be applied to earn the certificate of technology, then the level 2 certificate, and finally the Associate of Applied Science (AAS) degree when the courses are in the same specialty discipline.

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.

Engineering Design Graphics Petro/Industrial Specialty, Associate of Applied Science

Program Information

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Career Opportunities
Growth in Houston’s diversified job markets has created employment openings for drafters. Career opportunities for drafters are available in:

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• Public Works

Earning Potential
Mechanical drafter median salary: $67,474 per year

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Campuses
Central Campus
North Campus
South Campus

Information
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The EDG department provides several certificate levels and Associate of Applied Science (AAS) degree options. Working with local industry, courses have been clustered into specialty disciplines which provide concentration in specific areas of study. They include: Architectural/Civil/Structural, Mechanical and Petro/Industrial.

Plan of Study
All Campuses

3DFT-PI

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<td>Second Term</td>
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<tr>
<td>DFTG 2317</td>
<td>Descriptive Geometry</td>
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<td>Topographic Drafting</td>
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<td>DFTG 2423</td>
<td>Pipe Drafting</td>
<td>4</td>
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<td>Speech</td>
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<td>Summer Year One Term</td>
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<tr>
<td>Social and Behavioral Sciences or Government/Political Science or American History</td>
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<td>Third Term</td>
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<td></td>
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<tr>
<td>ARCE 1452</td>
<td>Structural Drafting</td>
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</tr>
<tr>
<td>DFTG 2407</td>
<td>Electrical Drafting</td>
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<tr>
<td>DFTG 2445</td>
<td>Advanced Pipe Drafting</td>
<td>4</td>
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<tr>
<td>MATH 1332 or MATH 1314</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher) or College Algebra</td>
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<tr>
<td>Fourth Term</td>
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<tr>
<td>DFTG 2408</td>
<td>Instrumentation Drafting</td>
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<tr>
<td>DFTG 2430</td>
<td>Civil Drafting</td>
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</tr>
<tr>
<td>DFTG 2457</td>
<td>Advanced Technologies in Pipe Design and Drafting</td>
<td>4</td>
</tr>
<tr>
<td>DFTG 2386 or DFTG 2338</td>
<td>Internship-Drafting and Design Technology/Technician 1 or Final Project - Advanced Drafting</td>
<td>3</td>
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<tr>
<td>Credits</td>
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</table>

Capstone Experience
1 DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting

The course selected to satisfy the Capstone Experience (DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting) can only be taken during, or after, the term in which the last required and elective engineering design graphics courses are completed.

Courses may be applied to earn the certificate of technology, then the level 2 certificate, and finally the Associate of Applied Science (AAS) degree when the courses are in the same specialty discipline.

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.

**Engineering Design Graphics Petro/Industrial Specialty, Certificate of Technology**

For more information, please contact Central campus, 281-476-1841; North campus, 281-998-6150, x7765; and South campus, 281-998-6150, x3587.

**Program Information**

All successful projects start with a good plan. For architects, engineering designers, CAD drafters, and builders, that plan comes in the form of working drawings produced by technically talented and well-trained individuals. If you have a desire to express your knowledge through computer aided design software, San Jacinto College can give you the skills you need to make your way into this exciting field. This degree allows you to pursue careers that strike a satisfying balance between creativity, technical proficiency, and attention to detail. You can make yourself an indispensable asset in a variety of fields, such as architecture, manufacturing, engineering, construction, and the oil and gas industry, with a degree in engineering design graphics.

The Engineering Design Graphics (EDG) program at San Jacinto College:

- Trains students to translate the ideas of designers, engineers and architects from rough sketches, design layouts, specifications, and calculations into working drawings, maps, plans, illustrations, and 3D models;
- Offers students the skills needed to prepare technical drawings and/or 3D models using Computer Aided Drafting (CAD), design, and 3D modeling software; and
- Offers degree plans in three areas:
  - a. Architectural/Civil/Structural
  - b. Mechanical
  - c. Petro/Industrial

**Career Opportunities**

Growth in Houston's diversified job markets has created employment openings for drafters. Career opportunities for drafters are available in:

- Architecture
- Engineering: Electrical, Instrumentation, Structural, Civil
- Manufacturing
- Oil, Energy, and Petrochemical
- Public Works

**Earning Potential**

Mechanical drafter median salary: $67,474 per year

1 Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

1 For more detailed information on this program, contact the Department Chair or faculty.

**Campuses**

Central Campus
North Campus
South Campus

**Information**

A certificate of technology focuses on 41 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:

1. Architectural/Civil/Structural,
2. Mechanical, and
3. Petro-Industrial.

**Plan of Study**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Term</td>
<td></td>
<td></td>
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<tr>
<td>DFTG 1305</td>
<td>Technical Drafting</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 1409</td>
<td>Basic Computer-Aided Drafting</td>
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</tr>
<tr>
<td></td>
<td><strong>Credits</strong></td>
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<tr>
<td>Second Term</td>
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<td></td>
</tr>
<tr>
<td>DFTG 2317</td>
<td>Descriptive Geometry</td>
<td>3</td>
</tr>
<tr>
<td>DFTG 2421</td>
<td>Topographic Drafting</td>
<td>4</td>
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<tr>
<td>DFTG 2423</td>
<td>Pipe Drafting</td>
<td>4</td>
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<tr>
<td></td>
<td><strong>Credits</strong></td>
<td><strong>11</strong></td>
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<tr>
<td>Third Term</td>
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<tr>
<td>ARCE 1452</td>
<td>Structural Drafting</td>
<td>4</td>
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</tr>
<tr>
<td></td>
<td><strong>Credits</strong></td>
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</tr>
</tbody>
</table>

Total Credits: 41

**Capstone Experience**

1 DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting
The course selected to satisfy the Capstone Experience (DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting) 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.

**Engineering Design Graphics**  
**Petro/Industrial Specialty, Level 2 Certificate**

### Program Information

All successful projects start with a good plan. For architects, engineering designers, CAD drafters, and builders, that plan comes in the form of working drawings produced by technically talented and well-trained individuals. If you have a desire to express your knowledge through computer aided design software, San Jacinto College can give you the skills you need to make your way into this exciting field. This degree allows you to pursue careers that strike a satisfying balance between creativity, technical proficiency, and attention to detail. You can make yourself an indispensable asset in a variety of fields, such as architecture, manufacturing, engineering, construction, and the oil and gas industry, with a degree in engineering design graphics.

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- Oil, Energy, and Petrochemical
- Public Works

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Source: texaswages.com (http://texaswages.com), Gulf Coast region, 2017

For more information, please contact Central campus, 281-476-1841; North campus, 281-998-6150, x7765; and South campus, 281-998-6150, x3587.

### Campuses

Central Campus  
North Campus  
South Campus

### Information

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 coursework, three (3) semester credit hours of mathematics, and three (3) semester credit hours of Speech. This is a fast-track award for those wishing to concentrate their studies in EDG and enter the job market as soon as possible.

### Plan of Study

**All Campuses**  
**5DFT-PI**

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<thead>
<tr>
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<th>Credits</th>
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<td><strong>10</strong></td>
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<tr>
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<tr>
<td>DFTG 2317</td>
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<td></td>
<td><strong>11</strong></td>
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<tr>
<td><strong>Third Term</strong></td>
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<tr>
<td>ARCE 1452</td>
<td>Structural Drafting</td>
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<td>DFTG 2407</td>
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<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning) (or higher)</td>
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<tr>
<td>or College Algebra</td>
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<td><strong>Credits</strong></td>
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<tr>
<td><strong>Fourth Term</strong></td>
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<tr>
<td>DFTG 2408</td>
<td>Instrumentation Drafting</td>
<td>4</td>
</tr>
<tr>
<td>DFTG 2430</td>
<td>Civil Drafting</td>
<td>4</td>
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</tbody>
</table>
**Engineering, Associate of Science in Engineering**

**Engineer Your Path to Success**

Everything is engineered. Every building, bridge, highway, pipeline, vehicle, toy, computer, athletic shoe—every manmade object is taken from idea to reality by engineers. San Jacinto College offers an Associate of Science in Engineering (ASE) that is designed to transfer to Texas public universities and includes courses in physics, chemistry, math, and engineering.

With this foundation, you’ll shape the future of space travel or develop our next great energy source. You may secure the world’s supply of fresh water or build the next Olympic stadium. An engineering degree gives you unlimited options to pursue ambitious goals and succeed.

An ASE from San Jacinto College:

- promotes maximum transferability for students and offers courses based on a particular field of engineering and the institution to which they will transfer;
- helps students develop skills for the management of natural resources, environmental restoration, and the design, installation, and improvement of integrated systems of business and manufacturing in a variety of fields; and
- prepares students for careers in biomedical engineering, chemical engineering, civil engineering, computer and electrical engineering, industrial engineering, mechanical engineering, petroleum engineering, and more.

**Type: Academic**

**Additional Information**

San Jacinto College participates in the Voluntary Mechanical Engineering Transfer Compact. The Transfer Compact represents 77 percent of the Texas public universities offering mechanical engineering and 75 percent of the Texas public community or technical colleges offering lower-division engineering courses. The compact guarantees transfer credit for community college students accepted into university mechanical engineering programs.

In order to transfer to a four-year institution, students must meet any and all entrance requirements of the receiving institution, including grade point averages and/or testing requirements.

**Career Opportunities**

Graduates of this program are prepared to become engineering professionals working in a wide range of fields such as designing water systems, highways, manufacturing systems, piping systems for chemical plants, bridges, computers, and even toy making.

**Earning Potential**

- Chemical engineer - $129,153¹
- Environmental engineer - $113,675¹
- Mechanical engineer - $99,721¹
- Civil engineer - $104,770¹

¹ Source: [www.texaswages.com](http://texaswages.com) annual median salary, Gulf Coast, 2017

The Associate of Science in Engineering (ASE) is a collegiate degree approved by the Texas Higher Education Coordinating Board (THECB) consisting of lower-division courses intended for transfer to baccalaureate programs that lead to an engineering degree. The ASE, as defined by THECB, is fully transferrable to Texas public universities that participate in the Tuning In Texas articulation agreement (transfer compact).

The College recommends students seek the advice of an educational planner. Students who complete the ASE will be required to meet any and all entrance requirements of the receiving institution, including grade point averages and/or testing requirements.

**All Campuses**

<table>
<thead>
<tr>
<th>Course</th>
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<td>CHEM 1311</td>
<td>General Chemistry I (lecture)</td>
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<td>&amp; CHEM 1111</td>
<td>and General Chemistry I (lab) (030, 090)</td>
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<tr>
<td>ENGR 1201</td>
<td>Introduction to Engineering¹</td>
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</tbody>
</table>

¹ Source: [www.texaswages.com](http://texaswages.com) annual median salary, Gulf Coast, 2017
Life Sciences, Associate of Science

The Associate of Science (AS) in Life Sciences (2LIFESCI) degree is designed for students who either plan to transfer to a four-year or upper-level college or university and major in biology or for students who plan to obtain an entry-level position in related fields. The AS degree requires an additional 12 hours in any BIOL or CHEM courses (with the exceptions of CHEM 1305/1105, BIOL 1308/1108, BIOL 1309/1109, and BIOL 2404) along with the Core Curriculum. Courses designed for non-majors (BIOL 1308 Biology for Non-Science Majors I (Lecture)/BIOL 1108 Biology for Non-Science Majors I (lab), BIOL 1309 Biology for Non-Science Majors II (Lecture)/BIOL 1109 Biology for Non-Science Majors II (lab), and CHEM 1305 Introductory Chemistry I (lecture)/CHEM 1105 Introductory Chemistry I (lab), do not apply to an AS degree. The College recommends these courses for the Associate of Arts (AA) degrees. BIOL 2404 is designed for allied health majors and does not apply to an AS degree. The College recommends this course for certain Associate of Applied Science (AAS) degrees.

The Associate of Science (AS) degree 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, or computer science. For more information, students may refer to the Core Curriculum and Field of Study sections of the catalog. The AS degree differs from an Associate of Arts (AA) degree in the amount or level of mathematics and science required for degree completion. The College requires a minimum of 12 hours of mathematics, 12 hours in science, or 12 hours in computer sciences beyond the core requirement for the degree. Please note the Field of Study AS degree options contain state-required courses for majors rather than courses for non-majors. Science courses designed for non-majors (BIOL 1308/1108, BIOL 1309/1109, CHEM 1105/1105) do not apply to an AS degree. The College recommends these courses for the major in mathematics, one of the sciences (biology, chemistry, geology, physics, biotechnology, or related field), engineering, or computer science.

Students seeking an AS 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 toward a science major.

Students choosing to pursue an AS degree should select from among life science, physical science, computer science, or mathematics. However, courses designed for non-majors (BIOL 1308 Biology for Non-Science Majors I (lecture)/BIOL 1108 Biology for Non-Science Majors I (lab), BIOL 1309 Biology for Non-Science Majors II (lecture)/BIOL 1109 Biology for Non-Science Majors II (lab), and CHEM 1305 Introductory Chemistry I (lecture)/CHEM 1105 Introductory Chemistry I (lab), and GEOL 1301 Earth Science (lecture)/GEOL 1101 Earth Science (lab) do not apply to an AS degree. The College recommends these courses for the AA degrees.

All Campuses
2LIFESCI

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1 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.
### Life Sciences, Associate of Science

<table>
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<th>Title</th>
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<td>Total Credits</td>
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</tbody>
</table>

1. Except BIOL 1308 Biology for Non-Science Majors I (lecture)/BIOL 1108 Biology for Non-Science Majors I (lab) and BIOL 1309 Biology for Non-Science Majors II (lecture)/BIOL 1109 Biology for Non-Science Majors II (lab); CHEM 1305 Introductory Chemistry I (lecture)/CHEM 1105 Introductory Chemistry I (lab)

### Language, Philosophy, and Culture (Humanities)

Select one of the following: 3

- ENGL 2322 British Literature I
- ENGL 2323 British Literature II
- ENGL 2327 American Literature I
- ENGL 2328 American Literature II
- ENGL 2332 World Literature I
- ENGL 2333 World Literature II
- ENGL 2341 Forms of Literature: Literature and Film
- ENGL 2351 Mexican American Literature
- GEOG 1302 Human Geography
- HIST 2321 World Civilization I
- HIST 2322 World Civilization II
- HUMA 1301 Introduction to the Humanities I
- PHIL 1301 Introduction to Philosophy
- PHIL 2306 Introduction to Ethics

### Creative Arts (Fine Arts)

Select one of the following: 3

- ARTS 1301 Art Appreciation
- ARTS 1303 Art History I (Prehistoric to the 14th century)
- ARTS 1304 Art History II (14th century to the present)
- DANC 2303 Dance Appreciation
- DRAM 1310 Introduction to Theater
- DRAM 2366 Introduction to Cinema: Film Appreciation I
- MUSI 1306 Music Appreciation
- MUSI 1307 Music Literature
- MUSI 1310 American Music

### American History

Select two of the following: 6

- HIST 1301 United States History I
- HIST 1302 United States History II
- HIST 2301 Texas History
- HIST 2327 Mexican American History I
- HIST 2328 Mexican American History II

### Government/Poltical Science

Select two of the following: 6

- GOVT 2305 Federal Government (Federal Constitution and Topics)
- GOVT 2306 Texas Government (Texas Constitution and Topics)

### Social and Behavioral Sciences

Select one of the following: 3

- ANTH 2302 Introduction to Archaeology
- ANTH 2346 General Anthropology
- ANTH 2351 Cultural Anthropology
- ECON 2301 Principles of Macroeconomics
- ECON 2302 Principles of Microeconomics
- GEOG 1303 World Regional Geography
- GOVT 2304 Introduction to Political Science
- HIST 2311 Western Civilization I

### Communications

Select two of the following: 6

- ENGL 1301 Composition I (required)
- ENGL 1302 Composition II
- ENGL 2311 Technical and Business Writing

### Mathematics

Select one of the following: 3

- MATH 1314 College Algebra
- MATH 1316 Plane Trigonometry
- MATH 1324 Mathematics for Business and Social Sciences
- MATH 1325 Calculus for Business and Social Sciences
- MATH 1332 Contemporary Mathematics (Quantitative Reasoning)
- MATH 2318 Linear Algebra
- MATH 2320 Differential Equations
- MATH 2412 Pre-Calculus Math
- MATH 2413 Calculus I
- MATH 2414 Calculus II

### Life and Physical Sciences (Natural Science)

Select two of the following: 6

- ASTR 1303 Stars and Galaxies (lecture)
- ASTR 1304 The Solar System (lecture)
- BIOL 1306 Biology for Science Majors I (lecture)
- BIOL 1307 Biology for Science Majors II (lecture)
- BIOL 1311 General Botany
- BIOL 1313 General Zoology (lecture)
- CHEM 1311 General Chemistry I (lecture)
- CHEM 1312 General Chemistry II (lecture)
- GEOL 1304 Historical Geology (lecture)
- GEOL 1305 Environmental Science (lecture)
- PHYS 1301 College Physics I (lecture)
- PHYS 1302 College Physics II (lecture)
- PHYS 2325 University Physics I (lecture)
- PHYS 2326 University Physics II (lecture)

### Code | Title                                                      | Credits |
<table>
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<tr>
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<tbody>
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<tr>
<td>EDUC 1300</td>
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<tr>
<td>PSYC 1300</td>
<td>Learning Framework</td>
<td></td>
</tr>
<tr>
<td>Academic elective (if successfully completed GUST 0305)</td>
<td></td>
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</tr>
</tbody>
</table>

### Institutional Option

Select one of the following: 3

- BCIS 1305 Business Computer Applications
- ITSC 1309 Integrated Software Applications I

### Academic elective (if student passes the computer literacy exam)
Mathematics, Associate of Science

A Foundation in Math Opens Many Doors

Mathematics is fundamental to many fields of study and professions – everything from auto repair to astrophysics uses mathematics. Whether you are planning a career in engineering, one of the sciences, information technology, business, finance, medicine, industry or education, a strong mathematics foundation can be your ladder to success.

At San Jacinto College, we have small classes taught by experienced professors who are dedicated to our students' mastery of mathematics. Upon graduation, you will be ready for entry into a wide variety of four-year degree mathematics programs or for immediate entry into one of many technical fields.

Career Opportunities

Students pursuing a bachelor's degree pathway in mathematics will be prepared for careers as:

- Accountants $88,921
- Actuaries $109,711
- Cost estimators $77,746
- Financial Managers $164,390
- Insurance Underwriters $66,514
- Mathematicians $43,269
- Operations Research Analysts $93,517
- Real Estate Appraisers $64,435
- Secondary teachers $61,844
- Statistician $78,542
- Survey Researchers $64,211

1 Source: www.texaswages.com, 2017 annual median salaries for Gulf Coast region

The Associate of Science (AS) degree 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, or computer science. For more information, students may refer to the Core Curriculum and Field of Study sections of the catalog. The AS degree differs from an Associate of Arts (AA) degree in the amount or level of mathematics and science required for degree completion. The College requires a minimum of 12 hours of mathematics, 12 hours in science, or 12 hours in computer sciences beyond the core requirement for the degree. Please
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<tbody>
<tr>
<td>2MATH</td>
<td>Transfer Path</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 Semester Credit Hours of the following:</td>
<td>12</td>
</tr>
<tr>
<td>MATH 2318</td>
<td>Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 2320</td>
<td>Differential Equations</td>
<td></td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 2414</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MATH 2415</td>
<td>Calculus III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>12</td>
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<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td></td>
<td>Institutional Option</td>
<td></td>
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<tr>
<td></td>
<td>Select one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 1300</td>
<td>Learning Framework</td>
<td></td>
</tr>
<tr>
<td>PSYC 1300</td>
<td>Learning Framework</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Academic elective (if successfully completed GUST 0305)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>BCIS 1305</td>
<td>Business Computer Applications</td>
<td></td>
</tr>
<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Academic elective (if student passes the computer literacy exam)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communications</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select two of the following:</td>
<td>6</td>
</tr>
<tr>
<td>ENGL 1301</td>
<td>Composition I (required)</td>
<td></td>
</tr>
<tr>
<td>ENGL 1302</td>
<td>Composition II</td>
<td></td>
</tr>
<tr>
<td>ENGL 2311</td>
<td>Technical and Business Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 1316</td>
<td>Plane Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MATH 1324</td>
<td>Mathematics for Business and Social Sciences</td>
<td></td>
</tr>
<tr>
<td>MATH 1325</td>
<td>Calculus for Business and Social Sciences</td>
<td></td>
</tr>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning)</td>
<td></td>
</tr>
<tr>
<td>MATH 1342</td>
<td>Elementary Statistical Methods (Statistics)</td>
<td></td>
</tr>
<tr>
<td>MATH 2318</td>
<td>Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 2320</td>
<td>Differential Equations</td>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td>MATH 2412</td>
<td>Pre-Calculus Math</td>
<td></td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 2414</td>
<td>Calculus II</td>
<td></td>
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</tbody>
</table>

### Life and Physical Sciences (Natural Science)

Select two of the following: 6

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 1303</td>
<td>Stars and Galaxies (lecture)</td>
<td></td>
</tr>
<tr>
<td>ASTR 1304</td>
<td>The Solar System (lecture)</td>
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<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (lecture)</td>
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<tr>
<td>BIOL 1307</td>
<td>Biology for Science Majors II (lecture)</td>
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</tr>
<tr>
<td>BIOL 1311</td>
<td>General Botany</td>
<td></td>
</tr>
<tr>
<td>BIOL 1313</td>
<td>General Zoology (lecture)</td>
<td></td>
</tr>
<tr>
<td>CHEM 1311</td>
<td>General Chemistry I (lecture)</td>
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<tr>
<td>CHEM 1312</td>
<td>General Chemistry II (lecture)</td>
<td></td>
</tr>
<tr>
<td>GEOL 1304</td>
<td>Historical Geology (lecture)</td>
<td></td>
</tr>
<tr>
<td>GEOL 1305</td>
<td>Environmental Science (lecture)</td>
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</tr>
<tr>
<td>PHYS 1301</td>
<td>College Physics I (lecture)</td>
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<td>PHYS 1302</td>
<td>College Physics II (lecture)</td>
<td></td>
</tr>
<tr>
<td>PHYS 2325</td>
<td>University Physics I (lecture)</td>
<td></td>
</tr>
<tr>
<td>PHYS 2326</td>
<td>University Physics II (lecture)</td>
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</tr>
</tbody>
</table>

### Language, Philosophy, and Culture (Humanities)

Select one of the following: 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2322</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENGL 2323</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENGL 2327</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENGL 2328</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENGL 2332</td>
<td>World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENGL 2333</td>
<td>World Literature II</td>
<td></td>
</tr>
<tr>
<td>ENGL 2341</td>
<td>Forms of Literature: Literature and Film</td>
<td></td>
</tr>
<tr>
<td>ENGL 2351</td>
<td>Mexican American Literature</td>
<td></td>
</tr>
<tr>
<td>GEOG 1302</td>
<td>Human Geography</td>
<td></td>
</tr>
<tr>
<td>HIST 2321</td>
<td>World Civilization I</td>
<td></td>
</tr>
<tr>
<td>HIST 2322</td>
<td>World Civilization II</td>
<td></td>
</tr>
<tr>
<td>HUMA 1301</td>
<td>Introduction to the Humanities I</td>
<td></td>
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<tr>
<td>PHIL 1301</td>
<td>Introduction to Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHIL 2306</td>
<td>Introduction to Ethics</td>
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</table>

### Creative Arts (Fine Arts)

Select one of the following: 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ARTS 1301</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ARTS 1303</td>
<td>Art History I (Prehistoric to the 14th century)</td>
<td></td>
</tr>
<tr>
<td>ARTS 1304</td>
<td>Art History II (14th century to the present)</td>
<td></td>
</tr>
<tr>
<td>DANC 2303</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRAM 1310</td>
<td>Introduction to Theater</td>
<td></td>
</tr>
<tr>
<td>DRAM 2366</td>
<td>Introduction to Cinema: Film Appreciation I</td>
<td></td>
</tr>
<tr>
<td>MUSI 1306</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUSI 1307</td>
<td>Music Literature</td>
<td></td>
</tr>
<tr>
<td>MUSI 1310</td>
<td>American Music</td>
<td></td>
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</tbody>
</table>

### American History

Select two of the following: 6

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1301</td>
<td>United States History I</td>
<td></td>
</tr>
<tr>
<td>HIST 1302</td>
<td>United States History II</td>
<td></td>
</tr>
<tr>
<td>HIST 2301</td>
<td>Texas History</td>
<td></td>
</tr>
<tr>
<td>HIST 2327</td>
<td>Mexican American History I</td>
<td></td>
</tr>
</tbody>
</table>
If a student successfully completes San Jacinto College’s 42-hour Core Curriculum course that has not been used to fulfill a previous component. Other courses that may be used in this component may include any Core 4 2 Total Credits

Select two of the following: 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOVT 2305</td>
<td>Federal Government (Federal Constitution and Topics)</td>
</tr>
<tr>
<td>GOVT 2306</td>
<td>Texas Government (Texas Constitution and Topics)</td>
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Social and Behavioral Sciences
Select one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</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>Western Civilization I</td>
</tr>
<tr>
<td>HIST 2312</td>
<td>Western Civilization II</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology</td>
</tr>
<tr>
<td>SOCI 1301</td>
<td>Introduction to Sociology</td>
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<tr>
<td>SOCI 2319</td>
<td>Minority Studies I</td>
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</table>

Component Area Option
Select two of the following: 4 6

<table>
<thead>
<tr>
<th>Course Code</th>
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</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 Communication</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>Beginning American Sign Language I</td>
</tr>
<tr>
<td>SGNL 1402</td>
<td>Beginning 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>

Total Credits 48

1. MATH 1324 Mathematics for Business and Social Sciences, MATH 1325 Calculus for Business and Social Sciences, and MATH 1332 Contemporary Mathematics (Quantitative Reasoning) are not recommended for students pursuing mathematics or science.
2. Students must be simultaneously co-enrolled in the co-requisite science lab.
3. 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.
4. 2 SCH in this option include the labs for science courses.

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 plan Core Curriculum courses that would meet baccalaureate degree requirements at the four-year institution.

Physical Sciences, Associate of Science

The Associate of Science in Physical Science (2PHYSCI) degree is designed for students who either plan to transfer to a four-year or upper-level college or university (and major in chemistry, geology, or physics) or for students who plan to obtain an entry-level position in related fields. The Associate of Science (AS) degree requires an additional 12 hours in any CHEM, GEOL or PHYS courses (with the exceptions of CHEM 1305/1105 and GEOL 1301/1101) along with the Core Curriculum. CHEM 1305 Introductory Chemistry I (lecture)/CHEM 1105 Introductory Chemistry I (lab) and GEOL 1301 Earth Science (lecture) /GEOL 1101 Earth Science (lab) do not apply to an AS degree. The College recommends these courses for the Associate of Arts (AA) degrees.

The Associate of Science (AS) degree 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, or computer science. For more information, students may refer to the Core Curriculum and Field of Study sections of the catalog. The AS degree differs from an Associate of Arts (AA) degree in the amount or level of mathematics and science required for degree completion. The College recommends a minimum of 12 hours of mathematics, 12 hours in science, or 12 hours in computer sciences beyond the core requirement for the degree. Please note the Field of Study AS degree options contain state-required courses recommended for the degree.

Students seeking an AS 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 toward a science major.

Students choosing to pursue an AS degree should select from among life science, physical science, computer science, or mathematics. However, courses designed for non-majors (BIOL 1308 Biology for Non-Science Majors I (lecture)/BIOL 1108 Biology for Non-Science Majors I (lab), BIOL 1309 Biology for Non-Science Majors II (lecture)/BIOL 1109 Biology for Non-Science Majors II (lab), CHEM 1305 Introductory Chemistry I (lecture)/CHEM 1105 Introductory Chemistry I (lab), and GEOL 1301 Earth
Science (lecture)/GEOL 1101 Earth Science (lab) do not apply to an AS degree. The College recommends these courses for the AA degrees.

**All Campuses**

2PHYSCI

Note: All science courses are co-requisites of a lab and lecture. For example, a student must take PHYS 1101 and PHYS 1301 together, which is a total of 4 semester credit hours as indicated by the second number in bold. Typically, three science courses (lecture and lab) will meet the 12 semester credit hours for the transfer path. In the Transfer Path section of the Course List below are all of the available science courses from which to choose.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Transfer Path</strong></td>
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</tr>
<tr>
<td></td>
<td>12 Semester Credit Hours in any CHEM, GEOL or PHYS listed in the core</td>
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</tr>
<tr>
<td>PHYS 1101</td>
<td>College Physics I (lab)</td>
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<tr>
<td>PHYS 1102</td>
<td>College Physics II (lab)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1301</td>
<td>College Physics I (lecture)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1302</td>
<td>College Physics II (lecture)</td>
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<tr>
<td>PHYS 2125</td>
<td>University Physics I (lab)</td>
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<td>PHYS 2126</td>
<td>University Physics II (lab)</td>
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<td>PHYS 2325</td>
<td>University Physics I (lecture)</td>
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<tr>
<td>PHYS 2326</td>
<td>University Physics II (lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1111</td>
<td>General Chemistry I (lab)</td>
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</tr>
<tr>
<td>CHEM 1112</td>
<td>General Chemistry II (lab)</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1311</td>
<td>General Chemistry I (lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1312</td>
<td>General Chemistry II (lecture)</td>
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<tr>
<td>GEOL 1103</td>
<td>Physical Geology (lab)</td>
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<tr>
<td>GEOL 1104</td>
<td>Historical Geology (lab)</td>
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<tr>
<td>GEOL 1303</td>
<td>Physical Geology (lecture)</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 1304</td>
<td>Historical Geology (lecture)</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Except CHEM 1305 Introductory Chemistry I (lecture)/CHEM 1105 Introductory Chemistry I (lab); GEOL 1301 Earth Sciences for Non-Science Majors I (lecture)/GEOL 1101 Earth Sciences for Non-Science Majors I (lab)

The Associate of Science (AS) degree 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, or computer science. For more information, students may refer to the Core Curriculum and Field of Study sections of the catalog. The AS degree differs from an Associate of Arts (AA) degree in the amount or level of mathematics and science required for degree completion. The College requires a minimum of 12 hours of mathematics, 12 hours in science, or 12 hours in computer sciences beyond the core requirement for the degree. Please note the Field of Study AS degree options contain state-required courses recommended for the degree.

Students seeking an AS 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 toward a science major.

Students choosing to pursue an AS degree should select from among life science, physical science, computer science, or mathematics. However,
SOCIAL AND BEHAVIORAL SCIENCE

- General Studies, Associate of Arts
- Social and Behavioral Sciences, Associate of Arts

General Studies, Associate of Arts

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 42-semester credit hour (SCH) core curriculum, the six-SCH institutional option, and a 12-hour transfer path, 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, Counseling, & Completion office on each 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 communications.

All Campuses
1G-STUDY

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer Path</td>
<td>12 Semester Credit Hours of Academic courses</td>
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</tr>
</tbody>
</table>
PHYS 2326  University Physics II (lecture)

**Language, Philosophy, and Culture (Humanities)**

Select one of the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2322</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENGL 2323</td>
<td>British Literature II</td>
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<tr>
<td>ENGL 2327</td>
<td>American Literature I</td>
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<tr>
<td>ENGL 2328</td>
<td>American Literature II</td>
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<tr>
<td>ENGL 2332</td>
<td>World Literature I</td>
</tr>
<tr>
<td>ENGL 2333</td>
<td>World Literature II</td>
</tr>
<tr>
<td>ENGL 2341</td>
<td>Forms of Literature: Literature and Film</td>
</tr>
<tr>
<td>ENGL 2351</td>
<td>Mexican American Literature</td>
</tr>
<tr>
<td>GEOG 1302</td>
<td>Human Geography</td>
</tr>
<tr>
<td>HIST 2321</td>
<td>World Civilization I</td>
</tr>
<tr>
<td>HIST 2322</td>
<td>World Civilization II</td>
</tr>
<tr>
<td>HUMA 1301</td>
<td>Introduction to the Humanities I</td>
</tr>
<tr>
<td>PHIL 1301</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHIL 2306</td>
<td>Introduction to Ethics</td>
</tr>
</tbody>
</table>

**Creative Arts (Fine Arts)**

Select one of the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ARTS 1301</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ARTS 1303</td>
<td>Art History I (Prehistoric to the 14th century)</td>
</tr>
<tr>
<td>ARTS 1304</td>
<td>Art History II (14th century to the present)</td>
</tr>
<tr>
<td>DANC 2303</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DRAM 1310</td>
<td>Introduction to Theater</td>
</tr>
<tr>
<td>DRAM 2366</td>
<td>Introduction to Cinema: Film Appreciation I</td>
</tr>
<tr>
<td>MUSI 1306</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUSI 1307</td>
<td>Music Literature</td>
</tr>
<tr>
<td>MUSI 1310</td>
<td>American Music</td>
</tr>
</tbody>
</table>

**American History**

Select two of the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1301</td>
<td>United States History I</td>
</tr>
<tr>
<td>HIST 1302</td>
<td>United States History II</td>
</tr>
<tr>
<td>HIST 2301</td>
<td>Texas History</td>
</tr>
<tr>
<td>HIST 2327</td>
<td>Mexican American History I</td>
</tr>
<tr>
<td>HIST 2328</td>
<td>Mexican American History II</td>
</tr>
</tbody>
</table>

**Government/Political Science**

Select two of the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOVT 2305</td>
<td>Federal Government (Federal Constitution and Topics)</td>
</tr>
<tr>
<td>GOVT 2306</td>
<td>Texas Government (Texas Constitution and Topics)</td>
</tr>
</tbody>
</table>

**Social and Behavioral Sciences**

Select one of the following:  

<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>Western Civilization I</td>
</tr>
<tr>
<td>HIST 2312</td>
<td>Western Civilization II</td>
</tr>
</tbody>
</table>

**Course Area Option**

The Course Area Option includes the following courses:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1324</td>
<td>Mathematics for Business and Social Sciences</td>
</tr>
<tr>
<td>MATH 1325</td>
<td>Calculus for Business and Social Sciences</td>
</tr>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning)</td>
</tr>
</tbody>
</table>

Students must be simultaneously co-enrolled in the core curriculum. MATH 1342 is required for a bachelor’s degree in nursing.

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 plan core curriculum courses that would meet baccalaureate degree requirements at the four-year institution.
Understanding the **Why**

A degree within the social and behavioral sciences allows you to study the why behind complex thought processes, learned behaviors, ancient and modern cultural differences, political science, and philosophical reasoning.

Students will learn to thoroughly examine and apply their own interpretations using the theories and research these courses have to offer. The critical thinking, theory application, and social observation skills learned in social and behavioral science courses can be applied to a number of outside courses, making a degree in social and behavioral sciences an excellent foundation to a number of disciplines.

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 42-semester credit hour (SCH) core curriculum, the six-SCH institutional option, and a 12-hour transfer path, 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, Counseling, & Completion office on each 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 communications.

### All Campuses

**Code** | **Title** | **Credits**
--- | --- | ---
SOC-BEHV | 1 | 

**Transfer Path**

12 Semester Credit Hours in any combination of:

- ANTH, CRIJ, GEOG, GOVT, HIST, HUMA, PHIL, PSYC, or SOCI

### INSTITUTIONAL OPTION

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 1300</td>
<td>Learning Framework</td>
<td>3</td>
</tr>
</tbody>
</table>

### Academic elective (if successfully completed GUST 0305)

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCIS 1305</td>
<td>Business Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
<td></td>
</tr>
</tbody>
</table>

### CORE CURRICULUM

**Communications**

Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I (required)</td>
<td>6</td>
</tr>
<tr>
<td>ENGL 1302</td>
<td>Composition II</td>
<td></td>
</tr>
<tr>
<td>ENGL 2311</td>
<td>Technical and Business Writing</td>
<td></td>
</tr>
</tbody>
</table>

**Mathematics**

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1314</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1316</td>
<td>Plane Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MATH 1324</td>
<td>Mathematics for Business and Social Sciences</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1325</td>
<td>Calculus for Business and Social Sciences</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning)</td>
<td></td>
</tr>
<tr>
<td>MATH 1342</td>
<td>Elementary Statistical Methods (Statistics)</td>
<td>2</td>
</tr>
<tr>
<td>MATH 2318</td>
<td>Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 2320</td>
<td>Differential Equations</td>
<td></td>
</tr>
<tr>
<td>MATH 2412</td>
<td>Pre-Calculus Math</td>
<td></td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 2414</td>
<td>Calculus II</td>
<td></td>
</tr>
</tbody>
</table>

**Life and Physical Sciences (Natural Science)**

Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 1303</td>
<td>Stars and Galaxies (lecture)</td>
<td>6</td>
</tr>
<tr>
<td>ASTR 1304</td>
<td>The Solar System (lecture)</td>
<td></td>
</tr>
<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (lecture)</td>
<td></td>
</tr>
<tr>
<td>BIOL 1307</td>
<td>Biology for Science Majors II (lecture)</td>
<td></td>
</tr>
<tr>
<td>BIOL 1308</td>
<td>Biology for Non-Science Majors I (lecture)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 1309</td>
<td>Biology for Non-Science Majors II (lecture)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 1311</td>
<td>General Botany</td>
<td></td>
</tr>
<tr>
<td>BIOL 1313</td>
<td>General Zoology (lecture)</td>
<td></td>
</tr>
<tr>
<td>BIOL 2301</td>
<td>Human Anatomy and Physiology I (lecture)</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 2302</td>
<td>Human Anatomy and Physiology II (lecture)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 1305</td>
<td>Introductory Chemistry I (lecture)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1311</td>
<td>General Chemistry I (lecture)</td>
<td></td>
</tr>
<tr>
<td>CHEM 1312</td>
<td>General Chemistry II (lecture)</td>
<td></td>
</tr>
<tr>
<td>GEO 1301</td>
<td>Earth Sciences for Non-Science Majors I (lecture)</td>
<td>4</td>
</tr>
<tr>
<td>GEO 1303</td>
<td>Physical Geology (lecture)</td>
<td></td>
</tr>
<tr>
<td>GEO 1304</td>
<td>Historical Geology (lecture)</td>
<td></td>
</tr>
<tr>
<td>GEO 1305</td>
<td>Environmental Science (lecture)</td>
<td></td>
</tr>
<tr>
<td>PHYS 1301</td>
<td>College Physics I (lecture)</td>
<td></td>
</tr>
<tr>
<td>PHYS 1302</td>
<td>College Physics II (lecture)</td>
<td></td>
</tr>
<tr>
<td>PHYS 2325</td>
<td>University Physics I (lecture)</td>
<td></td>
</tr>
<tr>
<td>PHYS 2326</td>
<td>University Physics II (lecture)</td>
<td></td>
</tr>
</tbody>
</table>

**Language, Philosophy, and Culture (Humanities)**

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2322</td>
<td>British Literature I</td>
<td>3</td>
</tr>
</tbody>
</table>
The Component Area Option includes the courses listed below as well as all other courses listed in the Core Curriculum that have not been used to fulfill a previous area of the Core. Select 6 semester credit hours (SCH) to fulfill this component.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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 Communication</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>Beginning American Sign Language I</td>
</tr>
<tr>
<td>SGNL 1402</td>
<td>Beginning 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>

Total Credits: 48

1. MATH 1324 Mathematics for Business and Social Sciences. MATH 1325 Calculus for Business and Social Sciences, and MATH 1332 Contemporary Mathematics (Quantitative Reasoning) are not recommended for students pursuing mathematics or science.

2. MATH 1342 is required for a bachelor's degree in nursing.

3. Students must be simultaneously co-enrolled in the co-requisite science lab.

4. BIOL 1308 Biology for Non-Science Majors I (lecture), BIOL 1309 Biology for Non-Science Majors II (lecture) and CHEM 1305 Introductory Chemistry I (lecture), and GEOL 1301 Earth Sciences for Non-Science Majors I (lecture) do not meet the requirements for science majors.

5. BIOL 2301 Human Anatomy and Physiology I (lecture) and BIOL 2302 Human Anatomy and Physiology II (lecture) are designed for allied health majors and not for academic transfer as science majors.

6. 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.

2 SCH in this option may include the labs for science courses.

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 plan core curriculum courses that would meet baccalaureate degree requirements at the four-year institution.
GENERAL INFORMATION

This catalog is a general information publication only. It is not intended to nor does it contain all regulations that relate to students. Moreover, the provisions of this catalog do not constitute a contract, expressed or implied, between any applicant, student, or faculty member and San Jacinto College. The College reserves the right to withdraw courses at any time and to change fees, rules, policies, calendar, curriculum, degree programs, degree requirements, graduation procedures, and any other requirements affecting students. Changes may occur without notice and will be immediately effective unless otherwise specified and will apply to both prospective students and those already enrolled. When changes are made, updated information usually can be found on the College website at www.sanjac.edu.

San Jacinto College reserves the right not to teach any course listed in the catalog or its published schedules if enrollment does not warrant offering it, or if other circumstances dictate its withdrawal.

San Jacinto College
San Jacinto College serves the communities and citizens of East Harris County, Texas. The San Jacinto College taxing area includes the Channelview, Deer Park, Galena Park, La Porte, Pasadena, and Sheldon independent school districts. The College’s service area expands to include portions of the Humble, Pearland, and Clear Creek school districts.

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- Admission Requirements for Individuals with F-1 Visa Status (p. 297)
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- Core Curriculum & Institutional Option (p. 315)
- Core Options for Technical Degrees (p. 307)
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- Field of Study (p. 309)
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Vision
San Jacinto College will advance the social and economic mobility of all members of our community. We will be known for our excellence in teaching and learning, our intentional student-centered support, and our commitment to every student. We will be the preferred workforce and economic development partner in the region and a champion for lifelong learning. San Jacinto College will inspire students to explore opportunities, define their educational and career paths, and achieve their goals and dreams.

Mission
San Jacinto College is focused on student success, academic progress, university transfer, and employment. We are committed to opportunities that 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 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
1866 Southern Lane
Decatur, Georgia 30033-4097

or call 404-679-4500 for questions about the accreditation of the San Jacinto College.

Equal Opportunity Statement

The San Jacinto College District is committed to equal opportunity for all students, 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:

**Vice Chancellor, Human Resources, Organizational and Talent Effectiveness**
Sandra Ramirez - (employees) - Co-lead Title IX Coordinator

Equal Opportunity Compliance Officer
4624 Fairmont Parkway
Pasadena, Texas 77504
sandra.ramirez@sjcd.edu (stephen.trncak@sjcd.edu)
281-998-6348

**Associate Vice Chancellor, Student Services**
Joanna Zimmermann (students) - Co-lead Title IX Coordinator
8060 Spencer Highway
Pasadena, Texas 77505
joanna.zimmermann@sjcd.edu
281-476-1863

**Vice Chancellor, Strategic Initiatives, Workforce Development, Community Relations, and Diversity**
Allatia Harris (equity in athletics)
8060 Spencer Highway
Pasadena, Texas 77505
allatia.harris@sjcd.edu
281-459-7140
ADMISSIONS

Steps to Enrollment
San Jacinto College is an open admission institution, and all students are welcome to apply. We are committed to meeting the needs of all students 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 - All students must apply online using the Apply Texas website at www.applytexas.org (http://www.applytexas.org). There is no charge to apply.
   a. Veterans/Dependents - Students who plan to use VA benefits should visit the Veteran Services website at www.sanjac.edu/veterans for more information on the next steps.
   b. International Students - Students from countries outside the United States must contact the International Student Services Office at South campus, S-6.120, and may view the website at www.sanjac.edu/international-students to obtain the International Student Application packet. Students may refer to the International Admissions section.

2. Placement Testing - Students should meet with an admissions advisor 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 providing documentation of exemption (See section titled Exemptions from the Texas Success Initiative.) English proficiency is required for individuals whose native language is not English. Students should refer to the English Language Proficiency Requirements for Students Who Are Speakers of Other Languages section.

3. Transcripts - Students must request all official transcripts from high school and/or all colleges attended. Students send unopened official transcripts electronically (not email) or via US Mail to:
   Records Management
   13735 Beamer Road
   Houston, TX 77089
   Unopened transcripts can also be hand-delivered to the nearest San Jacinto College campus. In addition, San Jacinto College accepts electronic transcripts from the following companies: Credentials eScrip-Safe, Parchment, National Student Clearinghouse (NSC), or via EDI/SPEEDE. Transcripts emailed to the College are not accepted. For more information, students may refer to the Transcripts for Admissions section.
   a. High School Equivalency - Students must verify Texas high school equivalency completion with the Admissions Office. Students may view their high school equivalency results by going to tea4avtuna.tea.state.tx.us/Tea.TxChse.Web/Forms/CertificateSearch.aspx (http://tea4avtuna.tea.state.tx.us/Tea.TxChse.Web/Forms/CertificateSearch.aspx). If applicable, students must request high school equivalency transcripts from out of state be sent officially in a sealed envelope from the state of origin.

b. Foreign transcripts - Documents must be evaluated by an approved evaluation agency. For an approved list, students may go to www.sanjac.edu/transcript-evaluation-services.

c. Evaluation - To request an evaluation of US college transcripts, students may call 281-998-6150 or contact the campus Admissions or Educational Planning, Counseling, & Completion Office for credit to transfer and/or for financial aid purposes. Transcripts must be received and on file with San Jacinto College before students may submit the Transcript Evaluation Form. If all transcripts are not received at the time the initial request is submitted, another request will be required to evaluate additional transcripts.

4. Meningitis Vaccination - 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 and returning San Jacinto College students who have had a break in enrollment for one or more fall or spring semesters. Students should provide documentation to the campus Admissions Office, faxed to 281-669-4720, or scanned and emailed to meningitis.docs@sjcd.edu. For additional information on this requirement, students may visit www.sanjac.edu/mentingitis.

5. Academic Advising - Students enrolling for the first time should meet with an admissions advisor to discuss test results and life and career goals and to create an educational plan and select courses. Note: A student should claim a Secure Online System (SOS) account after meeting with an advisor.

6. Orientation - The College requires all first-time-in-college (FTIC) students, including prior dual credit and transfer students with fewer than 12 college hours, to attend orientation. After students have been fully accepted, they may sign up for New Student Orientation through SOS at www.sanjac.edu/soslogin.

7. Financial Aid and Scholarships - Students may complete the Free Application for Federal Student Aid (FAFSA) form online at www.fafsa.gov (http://www.fafsa.gov) and contact the Financial Aid office with questions. Scholarship information is available at www.sanjac.edu/foundation/scholarships.

8. Register and Pay for Classes - Students may login to SOS at www.sanjac.edu/soslogin/register. Information regarding payment plans is available at www.sanjac.edu/payments, or students may call 281-998-6150 with any questions.

9. Student ID - Students may go to the Admissions Office at least 24 hours after having paid for their first semester of classes to receive a free ID card. The College charges a $10 replacement fee per ID card.

10. Parking Permit - After registration and payment, parking permits are available to students in the Business Office at no additional cost. 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. Students will fill out a brief application and will need their vehicle license plate number. A current student ID card or state-issued picture ID is required to receive a parking permit. The College imposes a fine on any student who fails to comply with parking regulations.

11. San Jacinto College Email Address - After registration and payment, students may go to www.sanjac.edu/email to set up an official San Jacinto College email account. The College sends official communication to the student through this email account.

12. Services for Students with Disabilities - Accommodations are available to students with documented disabilities attending San Jacinto College. Students with a disability who would like to apply...
for accommodations should contact the Accessibility Services Counselor at the campus where they plan to take classes:
Central campus 281-478-2768
North campus 281-459-7192
South campus 281-922-3444

Completing the Online Application for Admission
Applicants must apply for admission at www.applytexas.org (http://www.applytexas.org). During the application process, students will be asked questions about their name, home/current residence, 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 the College can process it. The College will process the application within 48 business hours after it is submitted. To be sure that the College received the application, students must see the confirmation notice that appears after submitting the application. After the College processes the application, students will receive information sent to the email address they submitted on the application. The information in the email includes next steps for admission and is extremely important. 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 when they bear the signature of the registrar or some other appropriate school official as well as the seal of the issuing school, the high school graduation date, 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. The College will keep transcripts on file for 90 days after the end of the term in which the transcript was received and will destroy the transcripts if the student has not enrolled.

Evaluation of Transcripts for Transfer Students
Students may request the College to conduct a course-by-course evaluation of official transcripts from regionally accredited colleges and universities or a college or university that has been approved by committee review. For a list of regional accrediting agencies, students may refer to the Transfer Credit section of the catalog. To request an evaluation, students may call 281-998-6150 or contact the campus Admissions or Educational Planning, Counseling, & Completion Office. Transcripts must be received and on file by the College before students submit the Transcript Evaluation Form.

When the evaluation is completed, the student will be notified via his or her College email account after which the student may view the equivalent courses by going to SOS, clicking Student Records, and then clicking Unofficial Transcript.

The College evaluates credit from transfer institutions on quarter hours using a ratio of .667 quarter hours to 1 semester hour. The College will evaluate credit from transfer institutions on other calendar types 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, have a course-by-course evaluation completed by a professional evaluation service. Students may access a list of pre-approved agencies at www.sanjac.edu/transcript-evaluation-services.

The college will review the evaluation upon request for acceptance before credit will be posted. The College will provide only general credit for course work completed in a language other than English. 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. Students may check with the Educational Planning, Counseling, & Completion Office for more detailed information.

Financial aid applicants should contact the Financial Aid office before requesting Academic Fresh Start. Students using veterans benefits should contact Veteran Services before requesting Academic Fresh Start.

Admission Types
San Jacinto College recognizes the following types of admission:

- High School Graduate
- High School Equivalency Exam Graduate
- College or University Transfer
- Individual Approval
  - Conditional admission-extenuating circumstances
  - Dual credit/early admission
- Provisional Admission

Note: Some programs of instruction may have special requirements in addition to those typically 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. San Jacinto College accepts all public high school transcripts. Home school transcripts are accepted when signed by a parent or legal guardian and accompanied by a verification of home school completion. This form is located at www.sanjac.edu/sites/default/files/Home-School-Completion-Verifi-Form-2-20-15.pdf. The College also accepts private high school transcripts that are:

- Listed on Texas Private School Accreditation Commission (TEPSAC) www.tepsac.org/#/home (http://www.tepsac.org/#/home)
- Approved by the High School Evaluation and Review Team. Students may submit official transcripts for review to the Admissions Office.
- Approved by a one of the regional high school accreditation bodies listed below.
Regional High School Accreditation Bodies

<table>
<thead>
<tr>
<th>Accrediting Agency</th>
<th>High School Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle States Association of Colleges and Schools - Commissions on Elementary and Secondary Schools (MSA-CESS)</td>
<td>Commissions on Elementary and Secondary Schools (<a href="http://msa-cess.org">http://msa-cess.org</a>)</td>
</tr>
<tr>
<td>New England Association of Schools and Colleges (NEASC)</td>
<td>New England Association of Schools and Colleges (NEASC) (<a href="http://neasc.org">http://neasc.org</a>)</td>
</tr>
<tr>
<td>Higher Learning Association</td>
<td>AdvancED (<a href="http://Advanc-ed.org">http://Advanc-ed.org</a>)</td>
</tr>
<tr>
<td>Northwest Accreditation Commission (NWAC)</td>
<td>AdvancED (<a href="http://Advanc-ed.org">http://Advanc-ed.org</a>)</td>
</tr>
<tr>
<td>Southern Association of Colleges and Schools on Accreditation and School Improvement (SACSCASI)</td>
<td>AdvancED (<a href="http://Advanc-ed.org">http://Advanc-ed.org</a>)</td>
</tr>
<tr>
<td>Western Association of Schools and Colleges (WASC)</td>
<td>Accrediting Commission for Schools (<a href="http://acswasc.org">http://acswasc.org</a>)</td>
</tr>
</tbody>
</table>

High School Equivalency Exam Graduate

To be admitted as a High School Equivalency graduate, students must provide an official Texas Certificate of High School Equivalency (TxCHSE) indicating that they have passed all parts of the exam. Students are able to obtain the TxCHSE by passing all parts of the General Education Diploma (GED), High School Equivalency Test (HiSET), or the Test Assessing Secondary Completion (TASC) exams in Texas, and may contact the Admissions Office to add those results to their records. Students much obtain transcripts from out-of-state from the state of origin. Students who take a Spanish High School Equivalency Exam will be required to show proof of English language proficiency. If students have not passed all parts of the Exam, they will need to see the Individual Approval section. Students may refer to the Testing Department for more information on the TxCHSE.

College or University Transfer

Students may be admitted by transfer from another regionally accredited college or university at a college or university that has been approved by committee review 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.

A student who holds 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 official transcripts 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 on academic suspension whose suspension period is over may be admitted on academic probation and should refer to the Re-enrollment after Suspension (p. 341) section of this catalog.

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

A transfer student on academic suspension whose suspension period has not passed should refer to the Transfer Students on Probation or Suspension (p. 341) section of this catalog.

Students are responsible for knowing if their academic status entitles them to admission. The College will withdraw students who are not eligible to enroll but succeed in enrolling anyway. In this case, students will have to forfeit all tuition.

Individual Approval

Conditional Admission—Extenuating Circumstances

Students who are not high school graduates or the equivalent may be admitted on a conditional basis for one term. Continuing enrollment is dependent upon meeting the following requirements:

1. Students must seek unconditional admission through one of the following means:
   a. Enroll in appropriate college preparatory courses;
   b. Take and pass all sections of the High School Equivalency Test (HiSET); and
   c. Complete high school graduation requirements.

2. Must maintain good academic standing for continued enrollment. Students may refer to the Probation and Suspension Table (p. 341) for more information.

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 one of the following conditions:

1. A 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 six college level credit hours. College level does not include developmental or CPD courses.

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

1. This is an unconditional admission status.
2. Students are eligible for graduation.
3. Students are not eligible for financial aid.
4. Students are not required to complete the High School Equivalency Test (HiSET).

Dual Credit/Early Admission

Students who are enrolled in high school may be conditionally admitted to the College on a dual credit/early admission basis for concurrent enrollment if they:

- submit an admission application
- submit a signed enrollment form from their high school principal or designee
- submit test scores to meet the Texas Success Initiative (TSI) testing requirements
- submit proof of meeting the Texas meningitis requirements

1. Students enrolling in a degree program must meet the TSI assessment requirements. Students may be exempt from the TSI assessment based on the exemptions listed in the TSI section of the catalog. If the student seeks enrollment in a course requiring a
designated skill prerequisite, the student must submit a passing TSI score or applicable exemption/waiver on the section that relates to the designated skill prerequisite.

2. Students are also eligible to enroll in College courses for dual credit according to the following rules:

Courses that require reading/writing TSI complete:

- If the student achieves a Level 2 final recommended score (4000+), as defined by TEA, on the English I STAAR EOC and a passing grade (defined as 70 or higher) in the Algebra II course; or
- If the student achieves a composite score of 23 on the ACT-PLAN with a 19 or higher in English or an English score of 435 on the ACT-Aspire.

Courses that require mathematics TSI complete:

- If the student achieves a Level 2 final recommended score (4000+), as defined by TEA, on the Algebra I STAAR EOC and a passing grade (defined as 70 or higher) in the Algebra II course; or
- If the student achieves a composite score of 23 on the ACT-PLAN with a 19 or higher in mathematics or a mathematics score of 431 on the ACT-Aspire.

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

Conditions of 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. To continue enrollment in college-level classes, students must meet the current academic standing rules of San Jacinto College. Students may refer to the Academic Probation and Suspension Table (p. 341) in this catalog.
2. Students may not enroll in courses for which they have not complied with TSI or met the course or skill prerequisites.
3. The College will release official transcripts of students admitted on a dual credit or an early admission basis through their expected graduation date. After that date, students must submit the final high school transcript indicating graduation before the College releases additional official transcripts.
4. Because any form of early admission is conditional, the College may impose additional limitations and requirements.

Information on other dual credit programs is available on each of the San Jacinto College campuses in the dual credit offices. Students may refer to the College website dual credit pages. (https://www.sanjac.edu/apply-register-pay/types-admissions/dual-credit-early-admission-program)

Early College High School Programs

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 San Jacinto College 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 a Texas Success Initiative (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 meeting the Texas meningitis requirements.

Pasadena Early College High Schools - Central and South Campuses

Pasadena Independent School District (PISD) has five Early College High Schools through a partnership between San Jacinto College and PISD. Ninth- and 10th-grade students attend high school and College classes at the high school campus. Eleventh- and 12th-grade students from Pasadena Memorial Early College High School, Pasadena Early College High School, and Sam Rayburn Early College High School attend high school and College courses at the San Jacinto College Central campus. Eleventh- and 12th-grade students from Dobie Early College High School and South Houston Early College High School attend high school and College courses at the San Jacinto College South campus. Participants in the program entering in their ninth-grade year are chosen by a selection process established by PISD. 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 a 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 meeting the Texas meningitis requirements.

Sheldon Early College High School - North Campus

Sheldon Early College High School (ECHS) is a partnership between San Jacinto College and Sheldon Independent School District (SISD). Sheldon ECHS is housed at C. E. King High School. Ninth- and 10th-grade students attend high school and College classes at Sheldon ECHS. 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 Sheldon 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 a 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 meeting the Texas meningitis requirements.
Galena Park Career and Technical Education Early College High School - North Campus

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 San Jacinto College 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 a 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.

Other Early College Programs

Modified Early College Academy (MECA) - North Campus

Modified Early College Academy (MECA) is a two-year program for incoming high school juniors at the San Jacinto College 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. To complete an associate degree, the College requires students to complete additional course work. Students can complete courses 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 a 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 meeting the Texas meningitis requirements.

Accelerated College Education (ACE) - Central Campus (La Porte ISD only)

Accelerated College Education (ACE) is a two-year program for incoming high school juniors at the San Jacinto College Central campus. Students in this program take four college courses each semester. To complete an associate degree, the College requires students to complete additional course work. Students can complete courses 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 a TSI-approved assessment test or submit proof of exemption.
3. Meet the current academic standing rules of San Jacinto College to continue enrollment in college-level courses.
4. Submit proof of meeting the Texas meningitis requirements.

The Deer Park Early College Academy (Deer Park ECA)

The Deer Park Early College Academy (Deer Park ECA) is a two-year program for high school students at the San Jacinto College Central campus. Deer Park students in this program take four college courses each semester of their junior and senior years, as well as summer and mini terms, to complete an associate degree prior to high school graduation. 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 a TSI-approved assessment test or submit proof of exemption.
3. Meet the current academic standing rules of San Jacinto College to continue enrollment in college-level courses.
4. Submit proof of meeting the Texas meningitis requirements.

Admission Requirements for Individuals with F-1 Visa Status

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:

2. Complete application for an I-20. For complete steps, students may refer to the College website regarding students residing outside the US. (https://www.sanjac.edu/apply-register/types-admissions/international-students/admissions)
3. Have all foreign secondary and college transcripts evaluated. The evaluation must show a secondary education that is equivalent to a US high school diploma or higher. 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, students may contact the International Student Services Office or visit the College website regarding international-students/admissions/students-residing-outside-us).
4. Provide proof of financial ability. San Jacinto College requires financial support of $23,484 US dollars annually. This is the estimated cost of educational and living expenses for one year at San Jacinto College. An additional $6,000 is required for the first dependent and $3,500 for each additional dependent. Students are required to submit documentation of these funds and currency exchange rates (if applicable). For more information, students may refer to the Initial Admissions Checklist. (https://www.sanjac.edu/apply-register/types-admissions/international-students/admissions/students-residing-outside-us).

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 the English Language Proficiency Requirement for Students Who are Speakers of Other Languages (p. 298) section in this catalog. Students meeting English language proficiency may be required to test for college readiness in reading, writing, and math, unless exempt. Students may refer to the Testing section (p. 298) in this catalog.

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. One fall plus one spring semester constitutes one academic year.

F-1 Visa Holder SEVIS 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 previous I-20s since initial entry into the United States.

Transfer students who are out of status must contact the International Student Counselor/DSO prior to admission.

Transfer students on academic suspension must apply for suspension appeal in the Educational Planning, Counseling, & Completion Office at South campus prior to admission. Transfer students admitted on academic probation must earn at least a 2.0 GPA to maintain good academic standing.

Admission Requirements for Individuals with Other Types of Visas

Students with other types of visas or non-immigrant status may be eligible for admission. To determine eligibility, students may contact the Admissions 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 apply for change of status:

1. Complete the online application for admission.
2. Have secondary and college transcripts evaluated. The evaluation must show a secondary education that is equivalent to a US 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, students may contact the International Student Services Office or visit the College website regarding International students (https://www.sanjac.edu/apply-register/types-admissions/international-students/admissions/students-residing-outside-us).
3. Provide proof of English proficiency. Students must meet requirements as listed under the English Language Proficiency Requirement for Students Who are Speakers of Other Languages (p. 298) in this catalog. Students meeting English language proficiency may be required to test for college readiness in reading, writing, and math, unless exempt. TOEFL and IELTS scores are valid for two years. Students may refer to the Testing section (p. 298) in this catalog.
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-US Citizens and Students without Current Visa Status

San Jacinto College is committed to serving students and assisting them to reach their educational goals, regardless of citizenship 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 language 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) or Exemptions (listed below).
- A student may be admitted to the ESOL Program with a minimum score of:
  - TOEFL 450 (Paper-Based Test), 45 (Internet-Based Test)
  - IELTS Band 4 range

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:

- TOEFL 525 (Paper-Based test), 70 (Internet-Based Test)
- IELTS Band 6 range

If outside of the US, submit an official TOEFL score. If inside the US, students may take the COMPASS-ESL exam at San Jacinto College. Once English Language proficiency is met, students will need to take the TSIA for academic course placement.

The TOEFL ID for South campus is 6730; North campus is 6729; Central campus is 6694.
Exemption from the English Language Proficiency Requirement may be granted due to:

- Two years attendance and graduation from US High School and/or successful completion of college-level English from a regionally accredited or committee approved US 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 coursework.

The ESOL Program does not fall under the provisions of the Texas Success Initiative (TSI). 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 60 (Reading), 53 (Listening); 53 (Sentence Meaning); 2 (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

The College accepts two 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 High School Equivalency Test (HiSET) 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 requirements.

College or University Transfer Students

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

Accuplacer ESL Placement Chart

Reading & Writing

<table>
<thead>
<tr>
<th>Score</th>
<th>WritePlacer</th>
<th>Course Placement</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>59 or below</td>
<td>1 or 0</td>
<td>CPD ESL</td>
<td>Continuing &amp; Professional Development ESL</td>
</tr>
<tr>
<td>60-70</td>
<td>2</td>
<td>ESOL 0351</td>
<td>Introductory Composition for Non-Native Speakers</td>
</tr>
<tr>
<td>71-89</td>
<td>3 or 4</td>
<td>ESOL 0372</td>
<td>Intermediate Reading &amp; Writing for Non-Native Speakers</td>
</tr>
<tr>
<td>90-109</td>
<td>5</td>
<td>ESOL 0373</td>
<td>Advanced Reading &amp; Writing for Non-Native Speakers</td>
</tr>
<tr>
<td>110 or above</td>
<td>6</td>
<td>TSIA Ready</td>
<td></td>
</tr>
</tbody>
</table>

Grammar

<table>
<thead>
<tr>
<th>Score</th>
<th>Language Use Score</th>
<th>Course Placement</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>52 or below</td>
<td>52 or below</td>
<td>CPD ESL</td>
<td>Continuing &amp; Professional Development ESL</td>
</tr>
<tr>
<td>53-85</td>
<td>53-85</td>
<td>ESOL 0382</td>
<td>Intermediate Grammar for Non-Native Speakers</td>
</tr>
<tr>
<td>86-108</td>
<td>86-108</td>
<td>ESOL 0383</td>
<td>Advanced Grammar for Non-Native Speakers</td>
</tr>
<tr>
<td>109 or above</td>
<td>109 or above</td>
<td>TSIA Ready</td>
<td></td>
</tr>
</tbody>
</table>

Note: The placement of Reading & Writing and Grammar is based on two sets of scores each. If a discrepancy occurs, the lower score will be the determinant. For example, if a student scores 75 in Reading and 5 in WritePlacer, he or she will be placed in ESOL 0372 Intermediate Reading and Writing for Non-Native Speakers instead of the higher level ESOL 0373 Advanced Reading and Writing for Non-Native Speakers.
Orientation and Campus Tours

The mission of Orientation and Campus Tours is to provide quality programming, support services, and resources to facilitate a seamless transition for first-time-in-college and transfer students. Through specifically designed events and communication, Orientation and Campus Tours promotes student development, persistence, and academic success.

The Orientation and Campus Tours 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 admission, the College requires students to register for NSO through the College's Secure Online System (SOS) at www.sanjac.edu/soslogin.

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

Testing

Campus Testing Centers

Campus Testing Centers offer the Accuplacer Texas Success Initiative Assessment (TSIA); the Accuplacer English as a Second Language (ESL); the College-level Examination Program (CLEP); the Texas high school equivalency exams: the General Educational Development (GED) and the High School Equivalency Test (HiSET); the Health Education Systems Incorporated (HESI) exam; the upper level math placement on South and North campus only; and make-up and accessibility coursework exams. Students may contact the nearest Testing Center for dates and times.

Taking the TSI Assessment

San Jacinto College uses the TSI Assessment to determine college readiness levels in mathematics, reading, and writing for non-exempt students. The test scores will determine if students are ready for college-level courses or need college preparatory courses. Before attending new student orientation (NSO) and enrolling in courses, students need to take this exam. Testing takes place at the student's campus of choice and can usually be completed in three to four hours. Students need to complete the TSIA Pre-Assessment Activity before going to Admissions for a Testing Request Form.

https://www.sanjac.edu/apply-register/overview/testing/pre-assessment-activity.

Texas Certificate of High School Equivalency (TxCHSE)

San Jacinto College currently administers the GED and HiSET high school equivalency exams for the Texas Certificate of High School Equivalency. For more information about high school equivalency requirements, students may visit https://tea.texas.gov/TxCHSE.html.

Credit by Examination

Students must mail the official copy of Advanced Placement (AP), College Level Examination Program (CLEP), and International Baccalaureate (IB) results to Records Management at the South campus for processing. A student must earn at least three credit hours of course work at San Jacinto College before the College will post transfer credit to the student’s transcript from these examination results.

Texas Success Initiative

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

Texas Success Initiative (TSI) College Preparatory

TSI became effective September 1, 2003. This initiative replaces the Texas Academic Skills Program (TASP) exam 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 revised TSI, 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 not be 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 TSI 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 TSI 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.

San Jacinto College 2019-2020
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 August 1, 1990.

SAT Testing prior to March 5, 2016 – Students who took the SAT test prior to March 5, 2016, may use the following scores: Combined critical reading (formerly verbal) and mathematics score of 1,070 with a minimum of 500 on the critical reading test shall be exempt for both reading and writing sections of the TSI, and/or 500 on the mathematics tests shall be exempt for the mathematics section of the TSI. Scores are valid for five years from the date of testing.

SAT minimum score of 480 on the Evidenced-Based Reading and Writing (EBRW) test shall be exempt for both reading and writing sections of the TSI; a minimum score of 530 on the mathematics test shall be exempt for the mathematics section of the TSI. The College does not recognize a combined score. Scores are valid for five years from the date of testing. Scores are valid for five years from the date of testing.

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.

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, 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, or State of Texas Assessment of Academic Readiness (STAAR) 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 taken before March 2016 Composite 1,070+ and Verbal (Critical Reading) 500+</td>
<td>SAT taken before March 2016 Composite 1,070+ and Mathematics 500+</td>
</tr>
<tr>
<td>SAT taken after March 2016 Reading and Writing 480+</td>
<td>SAT taken after March 2016 Mathematics 530+</td>
</tr>
<tr>
<td>STAAR EOC English III 4,000+</td>
<td>STAAR Algebra II, 4,000</td>
</tr>
</tbody>
</table>

Students who are partially exempt based on the ACT, SAT, or STAAR must test for TSI purposes in the areas for which 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 or occupational certificates) 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 meeting 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-related skill-level prerequisites; thus, assessment may be required. Students in this non-degree seeking status are not eligible for state or federal financial aid.

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 an exam called the TSIA to determine 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 through Summer 2012

Students must abide by the following rules 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 college-ready in reading, but is not college-ready in either writing or mathematics or both must first enroll in the required college preparatory course in either area. 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.

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, 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 College Student Success 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 both 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 College Student Success, EDUC 1300 Learning Framework, or PSYC 1300 Learning Framework before registering for his or her 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.

5. A student who transfers up to 11 hours of college-level credit to San Jacinto College will be required to enroll in GUST 0305 College Student Success, EDUC 1300 Learning Framework, or PSYC 1300 Learning Framework. Students with 12 or more hours of college-level credits are not required to enroll in a student success course.

6. Students required to take the EDUC 1300 Learning Framework course must enroll in the course before enrolling in their 10th college-level credit hour.

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

**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. Students who are not exempt and who have not met TSI requirements must see an educational planner/counselor or admissions advisor to determine if they must take an assessment test and to obtain a Testing Referral Form.

**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 that 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.

**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 include Elementary Algebra and Functions, Intermediate Algebra and Functions, Geometry and Measurement and Data Analysis, Statistics, and Probability. The placement test contains approximately 20 items, and the diagnostic test contains ten items per category.

The TSIA Writing Test is a multiple-choice assessment that covers the key College and Career Readiness Standards, which include essay revision, agreement, sentence structure and sentence logic. The placement test contains approximately 20 items and the diagnostic test contains 10-12 items per category. The TSIA Reading Test is a multiple-choice assessment that covers the key College and Career Readiness Standards, which include literary analysis, main idea and supporting details, inferences in a text or texts, and author’s use of language. The placement test contains approximately 24 items, the diagnostic test contains and 10-12 items per category.

The Texas College and Career Readiness Writing standards ask 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.

**Texas Success Initiative Assessment (TSIA) Placement Chart**

Beginning August 26, 2013, all degree-seeking students, unless otherwise exempt, must have taken the TSIA before enrolling for classes. The scores on the TSIA will determine skill-level assignments. The skill levels will determine the college preparatory courses that must be completed with a grade of “C” or better to progress to the next level or to become college-ready.

**Reading**

<table>
<thead>
<tr>
<th>ABE Score</th>
<th>Essay Score</th>
<th>TSIA Score</th>
<th>SJCD: Skill Level</th>
<th>Appropriate Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>Less than 342</td>
<td>Skill level 2</td>
<td>INRW 0205/INRW 0301; GUST 0305</td>
<td>Intentional Connections</td>
</tr>
<tr>
<td>5-6 (or no ABE Score)</td>
<td>342-346</td>
<td>Skill level 4</td>
<td>INRW 0302/ENGL 1301</td>
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## ABE Scores

<table>
<thead>
<tr>
<th>ABE Scores</th>
<th>Essay Scores</th>
<th>TSIA Scores</th>
<th>SJCD: Skill Level</th>
<th>Appropriate Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-6 (or no ABE Score)</td>
<td>347-350</td>
<td>Skill level 6</td>
<td>INRW 0112/ ENGL 1301</td>
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<tr>
<td>-</td>
<td>351 or higher</td>
<td>Skill level 7</td>
<td>College Ready</td>
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### Writing

<table>
<thead>
<tr>
<th>ABE Scores</th>
<th>Essay Scores</th>
<th>TSIA Scores</th>
<th>SJCD: Skill Level</th>
<th>Appropriate Course</th>
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</thead>
<tbody>
<tr>
<td>1-2</td>
<td>No Essay</td>
<td>0:310</td>
<td>Skill level 2</td>
<td>ABE Resources or INRW 0205/ INRW 0301/ GUST 0305 - Intentional Connections</td>
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<tr>
<td>3-4</td>
<td>0:2</td>
<td>311-339</td>
<td>Skill level 2</td>
<td>INRW 0205/ INRW 0301/ GUST 0305 - Intentional Connections</td>
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<tr>
<td>4+</td>
<td>1:4</td>
<td>311-339</td>
<td>Skill level 4</td>
<td>INRW 0302/ ENGL 1301</td>
</tr>
<tr>
<td>No ABE</td>
<td>1:3</td>
<td>340-90</td>
<td>Skill level 6</td>
<td>INRW 0112/ ENGL 1301</td>
</tr>
<tr>
<td>4-6</td>
<td>AND 5-8</td>
<td>AND 0:339</td>
<td>Skill level 7</td>
<td>College Ready</td>
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</table>

### Mathematics: Algebraic Path

<table>
<thead>
<tr>
<th>ABE Scores</th>
<th>Essay Scores</th>
<th>TSIA Scores</th>
<th>SJCD: Skill Level</th>
<th>Appropriate Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-6 or</td>
<td>336-349</td>
<td>Skill level 4</td>
<td>Math Foundation Course MATH 0332 or MATH 0342 or Co-requisite: (0332/1332 or 0132/1332) OR Co-requisite: (0132/1342 or 0342/1342)</td>
<td></td>
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<tr>
<td>-</td>
<td>350-390</td>
<td>Skill level 8</td>
<td>MATH 1332 or MATH 1342 - College Level</td>
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### Mathematics: Non-algebraic Path

<table>
<thead>
<tr>
<th>ABE Scores</th>
<th>Essay Scores</th>
<th>TSIA Scores</th>
<th>SJCD: Skill Level</th>
<th>Appropriate Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-6 or</td>
<td>336-349</td>
<td>Skill level 6</td>
<td>Math Foundation Course MATH 0332 or MATH 0342 or Co-requisite: (0332/1332 or 0132/1332) OR Co-requisite: (0132/1342 or 0342/1342)</td>
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<tr>
<td>-</td>
<td>350-390</td>
<td>Skill level 9</td>
<td>MATH 1314 or MATH 1324 - College Level</td>
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</tbody>
</table>
EDUCATIONAL PROGRAMS

- Associate Transfer Degrees (p. 304)
- Core Curriculum & Institutional Option (p. 315)
- Core Options for Technical Degrees (p. 307)
- Course Information (p. 308)
- Field of Study (p. 309)
- Major Codes - Technical Degrees and Certificates (p. 309)
- Technical Degrees and Certificates (p. 314)
- General Education Outcomes (https://publications.sanjac.edu/general-information/educational-programs/general-education-outcomes)

Associate Transfer Degrees

San Jacinto College offers a variety of certificates and degrees. The College encourages students 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 (AA) and the Associate of Science (AS) 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.

One path to an associate degree at San Jacinto College has three parts:

1. a 42-semester credit hour (SCH) core curriculum;
2. a six-hour institutional option; and
3. a 12-hour transfer path.

The Core Curriculum & Institutional Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>EDUC 1300</td>
<td>Learning Framework</td>
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<tr>
<td>PSYC 1300</td>
<td>Learning Framework</td>
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<td></td>
<td>Academic elective (if successfully completed GUST 0305)</td>
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<td>Select one of the following:</td>
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<tr>
<td>BCIS 1305</td>
<td>Business Computer Applications</td>
<td></td>
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<tr>
<td>ITSC 1309</td>
<td>Integrated Software Applications I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Academic elective (if student passes the computer literacy exam)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CORE CURRICULUM</strong></td>
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</tr>
<tr>
<td></td>
<td>Communications</td>
<td></td>
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<td>Select two of the following:</td>
<td>6</td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I (required)</td>
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<tr>
<td>ENGL 1302</td>
<td>Composition II</td>
<td></td>
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<tr>
<td>ENGL 2311</td>
<td>Technical and Business Writing</td>
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<tr>
<td></td>
<td><strong>Mathematics</strong></td>
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<td>Select one of the following:</td>
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<tr>
<td>MATH 1314</td>
<td>College Algebra</td>
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<tr>
<td>MATH 1316</td>
<td>Plane Trigonometry</td>
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<tr>
<td>MATH 1324</td>
<td>Mathematics for Business and Social Sciences</td>
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</tr>
<tr>
<td>MATH 1325</td>
<td>Calculus for Business and Social Sciences</td>
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</tr>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning)</td>
<td></td>
</tr>
<tr>
<td>MATH 1342</td>
<td>Elementary Statistical Methods (Statistics)</td>
<td></td>
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<tr>
<td>MATH 2318</td>
<td>Linear Algebra</td>
<td></td>
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<tr>
<td>MATH 2320</td>
<td>Differential Equations</td>
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<tr>
<td>MATH 2412</td>
<td>Pre-Calculus Math</td>
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<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
<td></td>
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<tr>
<td>MATH 2414</td>
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Life and Physical Sciences (Natural Science)

Select two of the following: 6

<table>
<thead>
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<tbody>
<tr>
<td>ASTR 1303</td>
<td>Stars and Galaxies (lecture)</td>
</tr>
<tr>
<td>ASTR 1304</td>
<td>The Solar System (lecture)</td>
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<tr>
<td>BIOL 1306</td>
<td>Biology for Science Majors I (lecture)</td>
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<tr>
<td>BIOL 1307</td>
<td>Biology for Science Majors II (lecture)</td>
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<td>BIOL 1308</td>
<td>Biology for Non-Science Majors I (lecture)</td>
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<td>BIOL 1309</td>
<td>Biology for Non-Science Majors II (lecture)</td>
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<td>BIOL 1311</td>
<td>General Botany</td>
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<td>BIOL 1313</td>
<td>General Zoology (lecture)</td>
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<tr>
<td>BIOL 2301</td>
<td>Human Anatomy and Physiology I (lecture)</td>
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<td>Human Anatomy and Physiology II (lecture)</td>
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<td>CHEM 1305</td>
<td>Introductory Chemistry I (lecture)</td>
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<td>CHEM 1311</td>
<td>General Chemistry I (lecture)</td>
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<td>General Chemistry II (lecture)</td>
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<td>GEOL 1301</td>
<td>Earth Sciences for Non-Science Majors I (lecture)</td>
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<tr>
<td>GEOL 1303</td>
<td>Physical Geology (lecture)</td>
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<td>GEOL 1304</td>
<td>Historical Geology (lecture)</td>
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<td>GEOL 1305</td>
<td>Environmental Science (lecture)</td>
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<td>PHYS 1302</td>
<td>College Physics II (lecture)</td>
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<td>PHYS 2325</td>
<td>University Physics I (lecture)</td>
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<td>PHYS 2326</td>
<td>University Physics II (lecture)</td>
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Language, Philosophy, and Culture (Humanities)

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<tbody>
<tr>
<td>ENGL 2322</td>
<td>British Literature I</td>
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<tr>
<td>ENGL 2323</td>
<td>British Literature II</td>
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<tr>
<td>ENGL 2327</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENGL 2328</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENGL 2332</td>
<td>World Literature I</td>
</tr>
<tr>
<td>ENGL 2333</td>
<td>World Literature II</td>
</tr>
<tr>
<td>ENGL 2341</td>
<td>Forms of Literature: Literature and Film</td>
</tr>
<tr>
<td>ENGL 2351</td>
<td>Mexican American Literature</td>
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<td>GEOG 1302</td>
<td>Human Geography</td>
</tr>
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<td>HIST 2321</td>
<td>World Civilization I</td>
</tr>
<tr>
<td>HIST 2322</td>
<td>World Civilization II</td>
</tr>
<tr>
<td>HUMA 1301</td>
<td>Introduction to the Humanities I</td>
</tr>
<tr>
<td>PHIL 1301</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHIL 2306</td>
<td>Introduction to Ethics</td>
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</table>
Creative Arts (Fine Arts)
Select one of the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ARTS 1301</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ARTS 1303</td>
<td>Art History I (Prehistoric to the 14th century)</td>
</tr>
<tr>
<td>ARTS 1304</td>
<td>Art History II (14th century to the present)</td>
</tr>
<tr>
<td>DANC 2303</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DRAM 1310</td>
<td>Introduction to Theater</td>
</tr>
<tr>
<td>DRAM 2366</td>
<td>Introduction to Cinema: Film Appreciation I</td>
</tr>
<tr>
<td>MUSI 1306</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUSI 1307</td>
<td>Music Literature</td>
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<td>American Music</td>
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American History
Select two of the following:  

<table>
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<tbody>
<tr>
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<td>United States History I</td>
</tr>
<tr>
<td>HIST 1302</td>
<td>United States History II</td>
</tr>
<tr>
<td>HIST 2301</td>
<td>Texas History</td>
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<tr>
<td>HIST 2327</td>
<td>Mexican American History I</td>
</tr>
<tr>
<td>HIST 2328</td>
<td>Mexican American History II</td>
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Government/Political Science
Select two of the following:  

<table>
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<tbody>
<tr>
<td>GOVT 2305</td>
<td>Federal Government (Federal Constitution and Topics)</td>
</tr>
<tr>
<td>GOVT 2306</td>
<td>Texas Government (Texas Constitution and Topics)</td>
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</tbody>
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Social and Behavioral Sciences
Select one of the following:  

<table>
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<tr>
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<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>
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<tr>
<td>GOVT 2304</td>
<td>Introduction to Political Science</td>
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<tr>
<td>HIST 2311</td>
<td>Western Civilization I</td>
</tr>
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<td>HIST 2312</td>
<td>Western Civilization II</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>Minority Studies I</td>
</tr>
</tbody>
</table>

Component Area Option
The Component Area Option includes the courses listed below as well as all other courses listed in the Core Curriculum that have not been used to fulfill a previous area of the Core. Select 6 semester credit hours (SCH) to fulfill this component.  

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
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</tr>
<tr>
<td>SPCH 1315</td>
<td>Public Speaking</td>
</tr>
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<td>SPCH 1318</td>
<td>Interpersonal Communication</td>
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<td>SPCH 1321</td>
<td>Business and Professional Speech</td>
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<tr>
<td>PHED 1164</td>
<td>Introduction to Physical Fitness and Wellness</td>
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<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>
</tbody>
</table>

The Transfer Path
Associate of Arts Degree

The Associate of Arts (AA) degree is designed for students who plan to transfer to a four-year or upper-level college or university and major in General Studies, Social & Behavioral Sciences, Business, Fine Arts, or Communications. For more information, students may refer to the Core Curriculum (p. 315) and Field of Study (p. 309) sections of the catalog.

- The Transfer Path for an AA in General Studies requires 12 SCHs in any combination from academic courses. For more specific information, refer to General Studies (10-STUDY) (p. 287).
- The Transfer Path for an AA in Social & Behavioral Sciences requires 12 SCHs in any combination from ANTH, CRJ, GEOG, GOVT, HIST, HUMA, PHIL, PSYC, or SOCI. For more specific information, refer to Social & Behavioral Sciences (1SOC-BEHV) (p. 289).
- The Transfer Path for an AA in Business requires 12 SCHs in any combination from ACCT, BCIS, BUSI, ECON, or MARA. For more specific information, refer to Business (1BUSINESS) (p. 39).

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 plan core curriculum courses that would meet baccalaureate degree requirements at the four-year institution.
Associate Transfer Degrees

The Associate of Arts in Teaching Degree

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

Students who complete the AAT at San Jacinto College 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.

- The Transfer Path for an AAT in Teaching - Early Childhood to 6th Grade requires 12 SCHs in any combination from MATH 1350, MATH 1351 or equivalent; EDUC 1301, EDUC 2301, and additional science beyond Life and Physical Science. For more specific information, refer to Teaching - Early Childhood to 6th Grade (1TEACH-EC6) (p. 141).
- The Transfer Path for an AAT in Teaching - Grades 7 to 12 requires 12 SCHs in any combination from EDUC 1301, EDUC 2301, and content area teaching fields/academic disciplines. For more specific information, refer to Teaching - Grades 7 to 12 (1TEACH-7-12) (p. 144).

Associate of Arts in Music

The Texas Higher Education Coordinating Board (THECB) 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.

The College designed the AA in Music to apply to Bachelor of Music (BM), Bachelor of Arts (BA), Bachelor of Music Education (BMed), or other baccalaureate-level music degrees as deemed appropriate by the awarding institution.

- For more specific information, refer to Music (1MUSIC) (p. 21).

Associate of Science in Engineering Degree

The Associate of Science in Engineering (ASE) is a collegiate degree approved by the Texas Higher Education Coordinating Board (THECB) consisting of lower-division courses intended for transfer to baccalaureate programs that lead to an engineering degree. The ASE, as defined by THECB, is fully transferrable to Texas public universities that participate in the Tuning In Texas articulation agreement (transfer compact).

The College recommends students seek the advice of an educational planner. Students who complete the ASE will be required to meet any and all entrance requirements of the receiving institution, including grade point averages and/or testing requirements.

- For more specific information, refer to Engineering (2ENGINEER) (p. 280).

Field of Study (FOS)

The state of Texas mandated field of study curricula 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 (THECB), but not for all majors. Students may transfer the block of courses in the field of study to a general academic teaching institution in Texas, and the institution must substitute the filed of study curricula 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 Texas Higher Education Coordinating Board (THECB) maintains a list of available Field of Study (FOS) curricula. ([Link](http://www.thecb.state.tx.us/index.cfm?objectid=7D02BA60-18B8-11E8-A6640050560100A9))

### Core Options for Technical Degrees

San Jacinto College is establishing an institutional exception to the credit hour limitation provided in the Texas Administrative Code for certain program(s). Programs/disciplines taught in an academy-type setting to emulate the standard practice in the applicable workplace, e.g., firefighting, are designed to allow intensive training to mimic the workplace and to develop skills and readiness for critical environments. Curricula for these type of programs are often structured according to regulatory agencies and may require course sequencing beyond the typical higher education pathway.

### Communications

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
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<td>ENGL 1302</td>
<td>Composition II</td>
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</tr>
<tr>
<td>ENGL 2311</td>
<td>Technical and Business Writing</td>
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### Mathematics

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<td>MATH 1316</td>
<td>Plane Trigonometry</td>
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<tr>
<td>MATH 1324</td>
<td>Mathematics for Business and Social Sciences</td>
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<td>MATH 1325</td>
<td>Calculus for Business and Social Sciences</td>
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<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics (Quantitative Reasoning)</td>
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<tr>
<td>MATH 1342</td>
<td>Elementary Statistical Methods (Statistics)</td>
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<td>MATH 2318</td>
<td>Linear Algebra</td>
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<td>Differential Equations</td>
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<td>MATH 2412</td>
<td>Pre-Calculus Math</td>
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<td>MATH 2413</td>
<td>Calculus I</td>
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<tr>
<td>MATH 2414</td>
<td>Calculus II</td>
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### Life and Physical Sciences (Natural Science)

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<td>ASTR 1304</td>
<td>The Solar System (lecture)</td>
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<td>BIOL 1306</td>
<td>Biology for Science Majors I (lecture)</td>
<td>3</td>
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<td>BIOL 1307</td>
<td>Biology for Science Majors II (lecture)</td>
<td>3</td>
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<td>BIOL 1308</td>
<td>Biology for Non-Science Majors I (lecture)</td>
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<tr>
<td>BIOL 1309</td>
<td>Biology for Non-Science Majors II (lecture)</td>
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<tr>
<td>BIOL 1311</td>
<td>General Botany</td>
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<td>BIOL 1313</td>
<td>General Zoology (lecture)</td>
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<td>BIOL 2301</td>
<td>Human Anatomy and Physiology I (lecture)</td>
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<td>Human Anatomy and Physiology II (lecture)</td>
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<td>Introductory Chemistry I (lecture)</td>
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<td>General Chemistry II (lecture)</td>
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<td>GEOL 1301</td>
<td>Earth Sciences for Non-Science Majors I (lecture)</td>
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<td>GEOL 1303</td>
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<td>College Physics II (lecture)</td>
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<td>University Physics II (lecture)</td>
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### Language, Philosophy, and Culture (Humanities)

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<td>ENGL 2328</td>
<td>American Literature II</td>
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<td>ENGL 2332</td>
<td>World Literature I</td>
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<td>ENGL 2333</td>
<td>World Literature II</td>
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<td>ENGL 2341</td>
<td>Forms of Literature: Literature and Film</td>
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<td>ENGL 2351</td>
<td>Mexican American Literature</td>
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<td>GEOG 1302</td>
<td>Human Geography</td>
<td>3</td>
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<tr>
<td>HIST 2321</td>
<td>World Civilization I</td>
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<td>HIST 2322</td>
<td>World Civilization II</td>
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<td>HUMA 1301</td>
<td>Introduction to the Humanities I</td>
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</tr>
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<td>PHIL 1301</td>
<td>Introduction to Philosophy</td>
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<td>PHIL 2306</td>
<td>Introduction to Ethics</td>
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### Creative Arts (Fine Arts)

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<tr>
<td>ARTS 1301</td>
<td>Art Appreciation</td>
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<td>Art History I (Prehistoric to the 14th century)</td>
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<td>ARTS 1304</td>
<td>Art History II (14th century to the present)</td>
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<td>DANC 2303</td>
<td>Dance Appreciation</td>
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<td>DRAM 1310</td>
<td>Introduction to Theater</td>
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<td>Introduction to Cinema: Film Appreciation I</td>
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<td>Music Appreciation</td>
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### American History

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<tr>
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<td>United States History II</td>
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<td>Texas History</td>
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<td>HIST 2327</td>
<td>Mexican American History I</td>
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Government/Political Science

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<td>GOVT 2107</td>
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Social and Behavioral Sciences

<table>
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<td>ANTH 2346</td>
<td>General Anthropology</td>
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<td>ANTH 2351</td>
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<td>ECON 2301</td>
<td>Principles of Macroeconomics</td>
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<td>GEOG 1303</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>GOVT 2304</td>
<td>Introduction to Political Science</td>
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</tr>
<tr>
<td>HIST 2311</td>
<td>Western Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2312</td>
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<td>PSYC 2301</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>SOCI 1301</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 2319</td>
<td>Minority Studies I</td>
<td>3</td>
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Course Information

Index to Subjects

<table>
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<tr>
<th>Subject</th>
<th>Code</th>
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<tbody>
<tr>
<td>Accounting</td>
<td>ACCT, ACNT</td>
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<tr>
<td>Agriculture/Agribusiness</td>
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<td>Air Conditioning Technology</td>
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<tr>
<td>Anthropology</td>
<td>ANTH</td>
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<tr>
<td>Art (ARTS) and Design</td>
<td>ARTC, ARTS, ARTV, GRPH, IMED, PHTC</td>
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<tr>
<td>Astronomy</td>
<td>PHYS</td>
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<tr>
<td>Automotive Collision Repair</td>
<td>ABDR</td>
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<td>AUMT</td>
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<tr>
<td>Biology</td>
<td>BIOL</td>
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<td>Biomedical Clinical Equipment</td>
<td>BIOM, CETT</td>
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<tr>
<td>Business</td>
<td>BCIS, BUSG, BUSI, MARA</td>
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<tr>
<td>Business Management</td>
<td>BMGT, BUSG, HRPO, MRKG</td>
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<tr>
<td>Business Office Systems and Support</td>
<td>BMGT, MRMT, POFI, POFM, POFT</td>
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<td>Child Development/Early Childhood Education</td>
<td>CDEC, TECA</td>
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<tr>
<td>College Preparatory</td>
<td>ENGL, ESOL, GUST, INRW, MATH, READ</td>
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<td>Communications</td>
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<td>CPMT, EECT, GAME, IMED, INEW, ITCC, ITNW, ITSC, ITSE, ITSW, ITSY</td>
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<td>Cosmetology</td>
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<td>CJCJ, CJLE, CJS, CRIJ</td>
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San Jacinto College 2019-2020
Occupational Therapy          OTHA
Paralegal                      LGLA
Personal Trainer               FITT, HPRS
Pharmacy Technician            HPRS, PHRA
Philosophy                     PHIL
Physical Education/Health      PHED
Education                     
Physical Therapist Assistant   PTHA
Physics                        ASTR, PHYS
Pipefitting/Fabricator Technician PFPB
Process Technology             CTEC, ENER, PTAC, PTRT, SCIT
Psychology                     PSYC
Reading                        INRW, READ
Real Estate                    RELE
Respiratory Care               RSPT
Restaurant Management          See Culinary Arts
Sociology                      SOCI
Speech                         SPCH
Surgical Technology            HPRS, SCIT, SRGT
Theatre and Film               DRAM
Video and Film Production      See Communications
Visual Communication           See Art and Design
Vocational Nursing             VNSG
Welding Technology             WLDG

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.

Definitions

Course Number: A four letter rubric (subject) and four digit number: SUBJ 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.

Throughout the catalog, course descriptions for classes available at San Jacinto College appear when you hover over a course rubric. The descriptions will help you choose courses that 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.

Note: Courses may not be offered online every semester

Field of Study

The state of Texas mandated field of study curricula 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 (THECB), but not for all majors. Students may transfer the block of courses in the field of study to a general academic teaching institution in Texas, and the institution must substitute the filed of study curricula 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 Texas Higher Education Coordinating Board (THECB) maintains a list of available Field of Study (FOS) curricula. (http://www.thecb.state.tx.us/index.cfm?objectid=7D028A60-18BB-11E8-A6640050560100A9)

Major Codes - Technical Degrees and Certificates

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<td>Instrumentation Level 2 Certificate</td>
</tr>
<tr>
<td>3INST</td>
<td>Instrumentation Technology Associate of Applied Science</td>
</tr>
<tr>
<td>EINST</td>
<td>Instrumentation Technology Enhanced Skills 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 Associate of Applied Science</td>
</tr>
<tr>
<td>ALTRM-CARE</td>
<td>Long-Term Care Administration Advanced Technical Certificate</td>
</tr>
<tr>
<td>Code</td>
<td>Program Name</td>
</tr>
<tr>
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<tr>
<td>6MAR-CI</td>
<td>Maritime Career Interest Occupational Certificate</td>
</tr>
<tr>
<td>3MARITIME</td>
<td>Maritime Transportation Associate of Applied Science</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-INCRA</td>
<td>Medical Imaging-Invasive Cardiovascular Technology Associate of Applied Science</td>
</tr>
<tr>
<td>AMED-INCRA</td>
<td>Medical Imaging-Invasive Cardiovascular Technology Advanced Technical Certificate</td>
</tr>
<tr>
<td>3MED-RAD</td>
<td>Medical Imaging-Medical Radiography Associate of Applied Science</td>
</tr>
<tr>
<td>3MED-SONO</td>
<td>Medical Imaging-Diagnostic Medical Sonography Associate of Applied Science</td>
</tr>
<tr>
<td>AMRAD-MRI</td>
<td>Medical Imaging-Magnetic Resonance Imaging Advanced Technical Certificate</td>
</tr>
<tr>
<td>AMRAD-CT</td>
<td>Medical Imaging-Computed Tomography (CT) Advanced Technical Certificate</td>
</tr>
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<td>EMRAD-CT</td>
<td>Medical Imaging-Computed Tomography (CT) Enhanced Skills Certificate</td>
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<tr>
<td>EMRAD-MAMM</td>
<td>Medical Imaging-Mammography Enhanced Skills Certificate</td>
</tr>
<tr>
<td>3MED-LABT</td>
<td>Medical Laboratory Technology Associate of Applied Science</td>
</tr>
<tr>
<td>AMLABT-CTA</td>
<td>Medical Laboratory Technology-Microscopic Tissue Anatomy Advanced Technical Certificate</td>
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<tr>
<td>6MH-SAC</td>
<td>Mental Health Services-Mental Health Substance Abuse Counseling Occupational Certificate</td>
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<td>5MH-SAC</td>
<td>Mental Health Services-Substance Abuse Counseling Level 2 Certificate</td>
</tr>
<tr>
<td>6MH-SAPS</td>
<td>Mental Health Services-Substance Abuse Prevention Specialist Occupational Certificate</td>
</tr>
<tr>
<td>6MH-TECH</td>
<td>Mental Health Services-Mental Health Technician Occupational Certificate</td>
</tr>
<tr>
<td>3MH-PSYC</td>
<td>Mental Health Services-Mental Health Clinical and Counseling Psychology Associate of Applied Science</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>4MUS-AUDI</td>
<td>Music-Techniques of Audio Engineering Certificate of Technology</td>
</tr>
<tr>
<td>3MUS-RCRD</td>
<td>Music Recording Associate of Applied Science</td>
</tr>
<tr>
<td>6WLD-QAT</td>
<td>Nondestructive Testing Technology-Quality Improvement Associate of Applied Science</td>
</tr>
<tr>
<td>4WLD-NDT</td>
<td>Nondestructive Testing Technology Certificate of Technology</td>
</tr>
<tr>
<td>5WLD-NDT</td>
<td>Nondestructive Testing Technology Level 2 Certificate</td>
</tr>
<tr>
<td>3WLD-NDT</td>
<td>Nondestructive Testing Technology Associate of Applied Science</td>
</tr>
<tr>
<td>EWLD-FXEOPO</td>
<td>Nondestructive Testing-Fixed Equipment Specialist Enhanced Skills Certificate</td>
</tr>
<tr>
<td>EWLD-NDTP</td>
<td>Nondestructive Testing-Quality Analyst 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 Associate of Applied Science</td>
</tr>
<tr>
<td>3NUR-LNTRN</td>
<td>LVN/Paramedic to RN Transition Nursing Associate of Applied Science</td>
</tr>
<tr>
<td>3NUR-PMTRN</td>
<td>LVN/Paramedic to RN Transition Nursing Associate of Applied Science</td>
</tr>
<tr>
<td>3OCC-THRPYA</td>
<td>Occupational Therapy Assistant Associate of Applied Science</td>
</tr>
<tr>
<td>3PARA-LGL</td>
<td>Paralegal Associate of Applied Science</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 Therapist Assistant Associate of Applied Science</td>
</tr>
<tr>
<td>6PIPEFIT</td>
<td>Pipefitting/Fabrication Technician Occupational Certificate</td>
</tr>
<tr>
<td>5PROT</td>
<td>Process Technology Level 2 Certificate</td>
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<tr>
<td>3PROT</td>
<td>Process Technology Associate of Applied Science</td>
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<tr>
<td>EPROT-CT</td>
<td>Process Technology Chemical Technician Enhanced Skills Certificate</td>
</tr>
<tr>
<td>6REAL</td>
<td>Real Estate Occupational Certificate</td>
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<td>4REAL</td>
<td>Real Estate Certificate of Technology</td>
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<tr>
<td>5REAL</td>
<td>Real Estate Advanced Level 2 Certificate</td>
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<td>3REAL</td>
<td>Real Estate Associate of Applied Science</td>
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<tr>
<td>Code</td>
<td>Program</td>
</tr>
<tr>
<td>--------</td>
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<tr>
<td>3RESP</td>
<td>3RESP Respiratory Care Associate of Applied Science</td>
</tr>
<tr>
<td>4SURF</td>
<td>4SURF Surgical Technology Certificate of Technology</td>
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<td>3SURF</td>
<td>3SURF Surgical Technology Associate of Applied Science</td>
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<tr>
<td>6WLD-ART</td>
<td>6WLD-ART Welding-Art Welding Occupational Certificate</td>
</tr>
<tr>
<td>6WLD-STI</td>
<td>6WLD-STI Welding-Stick Pipe Occupational Certificate</td>
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<tr>
<td>4WLD-C</td>
<td>4WLD-C Welding-Combination Welder Certificate of Technology</td>
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<tr>
<td>4WLD-GAS</td>
<td>4WLD-GAS Welding-Gas Shielded Arc Certificate of Technology</td>
</tr>
<tr>
<td>5WLD-IW</td>
<td>5WLD-IW Welding-Industrial Welder Level 2 Certificate</td>
</tr>
<tr>
<td>3WLD</td>
<td>3WLD Welding Technology Associate of Applied Science</td>
</tr>
</tbody>
</table>

**Technical Degrees and Certificates**

Students may begin with an Associate of Applied Science (AAS) or they may pursue a career pathway in increments, beginning with an occupational certificate and proceed through levels of certificates of technology. Some technical programs provide education beyond the AAS degree.

All AAS degree plans include one or more courses designed to meet each of the Department of Labor Secretary’s Commission on Achieving Necessary Skills (SCANS) requirements. Students who successfully complete the curricula requirements of a technical program have passed courses that demonstrate competency in the basic use of computers.

Completion of the semester credit hours for an occupational certificate does not qualify students to participate in the commencement ceremony. For information, students may refer to the Graduation (p. 317) section.

**Texas House Bill 1508**

Texas House Bill 1508 requires colleges to inform students with a criminal background that a criminal record may preclude them from being licensed for certain professions. Students who have questions about their background and licensure, may speak with a faculty member or the program Department Chair.

**Programs with Licensure Requirements**

<table>
<thead>
<tr>
<th>Program</th>
<th>Central</th>
<th>North</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Conditioning Technology</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Child Development/Early Childhood Development</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Computed Tomography</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cosmetology</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Diagnostic Medical Sonography</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Emergency Medical Services (EMS)</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Eye Care Technology</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>Invasive Cardiovascular Technology (IVCT)</td>
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<tr>
<td>Magnetic Resonance Imaging (MRI)</td>
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<tr>
<td>Mammography</td>
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<tr>
<td>Maritime Transportation</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Massage Therapy</td>
<td></td>
<td></td>
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<tr>
<td>Medical Assisting</td>
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<td>X</td>
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<tr>
<td>Medical Laboratory Technology</td>
<td></td>
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<tr>
<td>Medical Radiography</td>
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<td></td>
<td>X</td>
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<tr>
<td>Mental Health Services</td>
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<tr>
<td>Occupational Therapy Assistant</td>
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<td>X</td>
</tr>
<tr>
<td>Pharmacy Technician</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Physical Therapist Assistant</td>
<td></td>
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<tr>
<td>Real Estate</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Registered Nursing (RN)</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Respiratory Care</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Surgical Technology</td>
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<tr>
<td>Teacher Certification/Education</td>
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</tr>
<tr>
<td>Vocational Nursing (VN)</td>
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<td>X</td>
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</tr>
</tbody>
</table>

**Associate of Applied Science**

The College awards an Associate of Applied Science (AAS) degree to students who complete 60 semester credit hours of technical requirements, including 15 semester credit hours of general education courses. Programs may only exceed 60 SCH with an exemption from the Texas Higher Education Coordinating Board (THECB).

**Enhanced Skills Certificate**

The Enhanced Skills Certificate is considered to be a continuation of the AAS degree program. Therefore, to qualify for the Enhanced Skills
Certificate, the student must complete all of the AAS requirements for the degree as well as at least six and no more than 12 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 students may repeat multiple times for credit, the course may be utilized, as appropriate, as many times as credit is earned. Substitution for specified courses required in the enhanced skills certificate is not allowed. Completion of an Enhanced Skills Certificate does not qualify students to participate in the commencement ceremony.

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 45 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 AAS degree in the same program area as the AAS degree. An AAS degree program provides a shortened track for students who already hold a related degree.

Occupational Certificate

The College awards the Occupational Certificate to students who satisfactorily complete the required technical courses of at least 15-23 semester credit hour (SCH) programs, including credit-by-exam, or credit-by-certification.

Certificate of Technology

The College awards the Certificate of Technology to students who complete the required sequence of technical courses of at least 24 and no more than 42 SCH.

Level 2 Certificate of Technology

A Level 2 Certificate of Technology consists of at least 30 and no more than 51 SCH. Students in all Level 2 certificate areas shall be subject to the requirements of the TSI.

Core Curriculum & Institutional Option

Students must complete the 42-hour SCH core in the following areas: Communications (010); Mathematics (020); Life and Physical Sciences (Natural Science) (030); Language, Philosophy, and Culture (040); Creative Arts (Fine Arts) (050); American History (060); Government (Natural Science) (030); Language, Philosophy, and Culture (Humanities) (040); Communications (010); Mathematics (020); and Component Area Option (090)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tr>
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<td>INSTITUTIONAL OPTION</td>
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<tr>
<td>Select one of the following:</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>EDUC 1300   Learning Framework</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PSYC 1300   Learning Framework</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Academic elective (if successfully completed GUST 0305)</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>BCIS 1305   Business Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITSC 1309   Integrated Software Applications I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Academic elective (if student passes the computer literacy exam)</td>
<td></td>
</tr>
</tbody>
</table>

**CORE CURRICULUM**

**Communications**

Select two of the following: 6

- ENGL 1301 Composition I (required)
- ENGL 1302 Composition II
- ENGL 2311 Technical and Business Writing

**Mathematics**

Select one of the following: 3

- MATH 1314 College Algebra
- MATH 1316 Plane Trigonometry
- MATH 1324 Mathematics for Business and Social Sciences
- MATH 1325 Calculus for Business and Social Sciences
- MATH 1332 Contemporary Mathematics (Quantitative Reasoning) 1
- MATH 1342 Elementary Statistical Methods (Statistics) 2
- MATH 2318 Linear Algebra
- MATH 2320 Differential Equations
- MATH 2412 Pre-Calculus Math
- MATH 2413 Calculus I
- MATH 2414 Calculus II

**Life and Physical Sciences (Natural Science)**

Select two of the following: 6

- ASTR 1303 Stars and Galaxies (lecture)
- ASTR 1304 The Solar System (lecture)
- BIOL 1306 Biology for Science Majors I (lecture)
- BIOL 1307 Biology for Science Majors II (lecture)
- BIOL 1308 Biology for Non-Science Majors I (lecture) 4
- BIOL 1309 Biology for Non-Science Majors II (lecture) 4
- BIOL 1311 General Botany
- BIOL 1313 General Zoology (lecture)
- BIOL 2301 Human Anatomy and Physiology I (lecture) 5
- BIOL 2302 Human Anatomy and Physiology II (lecture) 5
- CHEM 1305 Introductory Chemistry I (lecture) 4
- CHEM 1311 General Chemistry I (lecture)
- CHEM 1312 General Chemistry II (lecture)
- GEOL 1301 Earth Sciences for Non-Science Majors I (lecture) 4
- GEOL 1303 Physical Geology (lecture)
- GEOL 1304 Historical Geology (lecture)
- GEOL 1305 Environmental Science (lecture)
- PHYS 1301 College Physics I (lecture)
- PHYS 1302 College Physics II (lecture)
- PHYS 2325 University Physics I (lecture)
- PHYS 2326 University Physics II (lecture)

**Language, Philosophy, and Culture (Humanities)**

Select one of the following: 3

- ENGL 2322 British Literature I
- ENGL 2323 British Literature II
- ENGL 2327 American Literature I
- ENGL 2328 American Literature II
- ENGL 2332 World Literature I
- ENGL 2333 World Literature II
- ENGL 2341 Forms of Literature: Literature and Film
ENGL 2351  Mexican American Literature  
GEOG 1302  Human Geography  
HIST 2321  World Civilization I  
HIST 2322  World Civilization II  
HUMA 1301  Introduction to the Humanities I  
PHIL 1301  Introduction to Philosophy  
PHIL 2306  Introduction to Ethics  

Creative Arts (Fine Arts)  
Select one of the following:  
  ARTS 1301  Art Appreciation  
  ARTS 1303  Art History I (Prehistoric to the 14th century)  
  ARTS 1304  Art History II (14th century to the present)  
  DANC 2303  Dance Appreciation  
  DRAM 1310  Introduction to Theater  
  DRAM 2366  Introduction to Cinema: Film Appreciation I  
  MUSI 1306  Music Appreciation  
  MUSI 1307  Music Literature  
  MUSI 1310  American Music  

American History  
Select two of the following:  
  HIST 1301  United States History I  
  HIST 1302  United States History II  
  HIST 2301  Texas History  
  HIST 2327  Mexican American History I  
  HIST 2328  Mexican American History II  

Government/Political Science  
Select two of the following:  
  GOVT 2305  Federal Government (Federal Constitution and Topics)  
  GOVT 2306  Texas Government (Texas Constitution and Topics)  

Social and Behavioral Sciences  
Select one of the following:  
  ANTH 2302  Introduction to Archaeology  
  ANTH 2346  General Anthropology  
  ANTH 2351  Cultural Anthropology  
  ECON 2301  Principles of Macroeconomics  
  ECON 2302  Principles of Microeconomics  
  GEOG 1303  World Regional Geography  
  GOVT 2304  Introduction to Political Science  
  HIST 2311  Western Civilization I  
  HIST 2312  Western Civilization II  
  PSYC 2301  General Psychology  
  SOCI 1301  Introduction to Sociology  
  SOCI 2319  Minority Studies I  

Component Area Option  
The Component Area Option includes the courses listed below as well as all other courses listed in the Core Curriculum that have not been used to fulfill a previous area of the Core. Select 6 semester credit hours (SCH) to fulfill this component.  
  SPCH 1311  Introduction to Speech Communication  
  SPCH 1315  Public Speaking  
  SPCH 1318  Interpersonal Communication  

San Jacinto College 2019-2020
GRADUATION REQUIREMENTS

Graduation Requirements for All Academic and Technical Awards (Degrees/Certificates)

The College awards the Associate of Arts (AA), Associate of Arts in Teaching (AAT), the Associate of Science (AS), and the Associate of Applied Science (AAS) degree as well as the Certificate of Technology (Level I), Certificate of Technology (Level II), Occupational Certificate (Level III), Enhanced Skills Certificate (Level III),1 and the Advanced Technical Certificate (Level IV)1.

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.
- The award GPA is displayed only on the My San Jac GPS award evaluation (graduation catalogs Fall 2013 and forward) or CAPP award evaluation (graduation catalogs prior to Fall 2013).
- To be awarded the Level II Certificates, Enhanced Skill Certificates, Advanced Technical Certificates, and all associate degrees, the student must have met the TSI standard of being college-ready in all areas.
- Meet the provisions as described in the section entitled Transfer Information (p. 318) when transfer credit is to be applied toward an award. (Note: transfer credit is not considered as residence hours)
- Meet with a counselor or educational planner to verify award completion.
- Make formal application for graduation at the Educational Planning, Counseling, & Completion office. Students may refer to the Academic Calendar (p. 330) for deadline dates.

1 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 degree. With the following stipulations, students may obtain additional associate degrees.

- A student who has received an AS may obtain an AA or AAT, but not two AS degrees, by completing a minimum of 12 applicable hours that did not apply to the previous degree.
- A student who has received an AAT or AA degree, by completing a minimum of 12 applicable hours that did not apply to the previous degree.
- A student who has received an AAS may obtain an AA or AAT, or AS by completing all degree requirements.
- A student who has received an AAS may obtain an additional AAS in a different six-digit Classification of Instructional Programs (CIP) by completing all degree requirements.
- A student who has received an AA, AS, or AAT degree may obtain an AAS 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. The College does not charge students a 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. The student confirms that all requirements for the degree or certificate are completed or in progress. Then, the student may print a copy and take it to the Educational Planning, Counseling, & Completion office by the application deadline date and submit a Request for Final Graduation Verification.

2. Transcripts: Following the end-of-term posting of grades, the College verifies that students have completed all requirements in progress and posts the degrees to the students' records. Students may request transcripts approximately two weeks after the posting of final grades for the term.

3. Diplomas: Diplomas are typically mailed out to the student's address on file about three weeks following the posting of final grades for the term.

4. 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 semester credit hours), may fulfill their course requirements at another regionally accredited or committee approved 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 (THECB) 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 the College reports these students as completing the core curriculum, the College will then review the students' records to determine if they have also completed all the requirements for an associate degree. If all degree requirements are met, the College will award the students an Associate of Arts (AA) degree in General Studies and post the degree to the official transcript. The College will notify the students 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 College will award the Associate of Arts (AA) in General Studies degree and post the degree to the official transcript. The College will notify the students via the last known email address that the degree has been awarded.

Awarding Academic and Technical Degrees/Certificates to Students not Applying for Graduation

The College expects each student to run a degree check via MY SANJAC GPS to determine if he or she has met degree or certificate requirements for a particular program; then the student should apply for graduation in Educational Planning, Counseling, & Completion.

College staff may evaluate the records of students who did not apply but appear to have completed all certificate or degree requirements in previous terms. The College staff will review the records to determine if a student is eligible to be awarded a certificate or degree. If a student has met the requirements, the College will award the certificate or degree and post the award to the official transcript. The student will then be notified that the degree has been awarded via the last known email address.

This does not release students from the individual responsibility of officially applying for graduation in order to attend the commencement ceremony. This process is designed for students who did not apply. It does not guarantee that all degrees and certificates will be identified and awarded.

Commencement

Students may express their desire to participate in commencement when they submit the Request for Final Graduation Verification form, but commencement is not a requirement for graduation.

Students who complete a certificate of technology, a level 2 certificate, or an associate degree may participate in commencement.

Students order caps and gowns for commencement through the campus bookstore. Honors program graduates, members of Phi Theta Kappa, and members of the National Technical Honor Society should speak to the program director or club advisor regarding specialty regalia for graduation. Veterans should speak with Veteran Services on their campus concerning Honor Cards for veterans.

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 College 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 College has established the guidelines listed below to assist students in identifying the specific requirements that apply to their chosen programs of study and to identify the available catalog selection options for graduation.

Students are eligible to graduate under the program requirements of any catalog academic year in which they were enrolled in at least one term or the most current catalog at the time they apply for graduation even if they were not enrolled. Enrollment in an academic year is defined as registration, payment, and the posting of a grade on the official San Jacinto College transcript within the academic year. San Jacinto College must still be authorized by the Texas Higher Education Coordinating Board (THECB) to award the degree or certificate.

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.

Students must 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. Educational planners, counselors, or admissions advisors will assist students in the selection of the appropriate catalog and courses.

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 or committee approved 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.

Transfer Information

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.

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 note that many courses have reading, writing, or mathematics skill requirements, which are determined by the placement tests students take upon entry.
Admissions advisors, educational planners, and/or counselors are available to help students determine which and how many courses they should take. The typical 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 or 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 Admissions office. Students pursuing a degree at San Jacinto College must request that the College evaluate those transcripts to determine which courses will transfer and apply to the majors students have selected at San Jacinto College.
PAYING FOR COLLEGE

Pay as You Go!

Beginning the evening of the payment deadline for each term, San Jacinto College initiates the Pay-As-You-Go system. 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.

This payment system is run daily during the entire term, beginning on the evening of the payment deadline. Students registering for the first time or re-registering on or 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 PM on the same Monday. The evening of the payment deadline, the registration system (SOS) will be offline every night from 12 PM to 3 AM, to remove registrations that are totally or partially unpaid.

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

Totally Unpaid:

For a student who registered for courses and has not made any payment or had any financial aid, third-party billing, or scholarship applied to the account, the College will remove registrations for all courses, 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’s 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 College will adjust the registration to bring the account balance to zero. The College will drop courses with the latest start date first. Then the College will drop courses according to registration date and time 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. Students should not use company checks or loan checks from credit cards or other financial institutions online. They will be rejected and result in a $30 returned check charge.
   b. The College assesses a $30 processing charge 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. Students may use the Student Account Suite to update 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 cashing 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 standard paper check and included with the typical 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 standard paper check and included with the typical deposits of the College.
   d. The College assesses a $30 processing charge 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 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 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 want to pay in person at any campus 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 charges in four payments. The terms include the following: Pay 25 percent of eligible tuition and charges when setting up the payment plan and pay three additional 25 percent payments on specified dates for each term. The College assesses a $25 charge 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 or a 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 of this catalog 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 charges 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 an 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, charges, 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.

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

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.

The College charges a late charge of $25 for late payment of any IPPs or FASTLs. The College assesses a $30 processing charge 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 Charges at Public Community/Junior and Technical Colleges,” govern the refund schedule. Only the Texas Legislature or the Texas Higher Education Coordinating Board (THECB) 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 Admissions Office on or before the 12th class day of the fall or spring term or the eighth class day of the summer session.

Credit Refunds or Financial Aid Disbursements – Payments to Students

BankMobile, 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 BankMobile to provide a more efficient, safer, 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 and marked paid as of the Payment Deadline will receive a Refund Selection Kit with a unique Personal Code in the mail with instructions on how to log on to a secure website. The student will be responsible to sign in to the website and choose a refund preference. If they choose the BankMobile Vibe Account, they will be provided a virtual card, and their actual card will automatically be ordered and mailed to them. Students can reorder an active card with BankMobile. Please be aware there is a $10 replacement fee for a Vibe Account Card that has already been activated and it can be reordered by visiting bankmobilevibe.com/.

Students will be asked to confirm their primary email and mailing addresses and select how they would like to receive their refund from BankMobile. Students will be given multiple options including an Automated Clearing House (ACH) transfer to a bank account of their choice; direct deposit to the BankMobile Vibe Account, an optional, no-minimum balance, no-monthly-fee, FDIC-Insured checking account provided by BankMobile; etc. 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, BankMobile educates the campus community on the changes and benefits to the process. BankMobile also collects and maintains student bank account information in a safe and protected manner. Students and parents are assured that BankMobile 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 charges they paid, depending on the effective date of the withdrawal, in
accordance with the state refund schedule. As shown in 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 and 70 percent, 25 percent or 0 percent based on specific dates thereafter. The College does not allow 100 percent refunds during course drops/adds after the first day of class.

Once students pay tuition and charges or have financial aid applied, they are considered officially registered until they complete the term or drop individual courses 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 Admissions Office or the Educational Planning, Counseling, & Completion 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 charges subject to the pay-as-you-go process.

Refund Table (Semester Credit Hour Charges Retained by the College)

<table>
<thead>
<tr>
<th>Tuition Type</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 (In-District) Tuition</td>
<td>$78 per semester credit hour</td>
<td>$23.40 per semester credit hour</td>
<td>$58.50 per semester credit hour</td>
<td>$78 per semester credit hour</td>
</tr>
<tr>
<td>Texas Resident (Out-of-District) Tuition</td>
<td>$135 per semester credit hour</td>
<td>$40.50 per semester credit hour</td>
<td>$101.25 per semester credit hour</td>
<td>$135 per semester credit hour</td>
</tr>
<tr>
<td>Non-Texas Resident Tuition</td>
<td>$210 per semester credit hour</td>
<td>$63 per semester credit hour</td>
<td>$157.50 per semester credit hour</td>
<td>$210 per semester credit hour</td>
</tr>
</tbody>
</table>

The College retains either 0%, 30%, 75%, or 100% of the original charge related to any refundable course charges depending on the specific date of withdrawal.

Financial Aid

Financial Aid Office

The primary purpose of the Financial Aid 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.

Students should contact the Financial Aid 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 US 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 debt for financial aid received. If a student wants to avoid a withdrawal assigned on his/her transcript, the student must withdraw prior to the census date. The official census date varies according to the length of the course. For a traditional semester, generally the 12th class day is marked as the census date. For all other parts of term census dates, students may visit the Financial Aid office.

Financial aid funds are offered at a full-time status (12 semester hours). Actual disbursements are based on enrollment status as of the census date. 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 accordingly and payments will be made after the parts-of-term classes begin. Part-of-term classes are defined as classes with varying start and end dates that can occur during the regular term or between terms.

San Jacinto College can only disburse aid for classes that are part of a program of study. On the census date a final review is perform to ensure classes are part of a current program of study. Students are not allowed to change their program of study for the current semester after the census date. Program of study changes will be effective the following semester.

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 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 Steps

Completing the following steps by the deadline will increase the chance of the financial aid application being reviewed prior to the beginning of school. Student should:

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. Students must be admitted to San Jacinto College prior to any financial aid awards being made.

2. Submit an official high school transcript or state approved equivalency to the San Jacinto College Admissions Office.

3. Submit official college transcripts (transfer students) from each institution attended that includes all classes attempted and file a request with the Admissions Office to have the transcripts evaluated. Students who have taken classes outside the United States must have their transcripts evaluated on a course by course basis by a foreign transcript evaluation company, at their own expense.

4. Register with Selective Service at www.sss.gov (http://www.sss.gov) if a student is a male aged 18 to 25.

5. Apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.gov (http://www.fafsa.gov). The College’s school code is: 003609.

6. Follow up on all communication from the College when additional information is requested.

7. Register for classes.

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 San Jac link at www.san jac.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 the San Jac 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 (available) aid to their account at the time of registration. Only once the student is registered can eligibility of financial aid be determined. The updating of the authorized process occurs on a regular and frequent basis. If the aid has not been authorized within 24 hours of registration, students should contact the Financial Aid office to determine if a problem exists. Financial aid funds are officially disbursed to 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 bookstores or the Financial Aid Office for the dates they may charge. Students have the right to opt-out of using the bookstore on campus. If the opt-out is selected, students will still receive their credit balance during the regular refund process.

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

5. If a student does not plan to attend and financial aid is authorized, the student must officially withdraw.

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 do not 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 is 003609 regardless of the campus students will attend. Students can go to: www.fafsa.gov (http://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 Oct. 1. Although students are awarded on a first come, first served basis, funds for most financial aid programs are awarded on demonstrated financial need.

Awarding of aid will begin approximately the first week of June. To secure an award for fall, applications must be completed by the end of June; to secure an award for spring, applications must be completed by the end of October; to secure an award for summer, applications must completed by the end of April. An application is considered complete when all documents needed by the Financial Aid Office and the Admissions Office are on file.

Student applications completed after the deadlines above may still receive aid. However, they will have to pay for their own tuition, 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 at www.fafsa.gov (http://www.fafsa.gov) with a username and password that they create, this is also known as an FSA ID.

Steps to create a FSA ID:
• Go to fsaid.ed.gov (http://fsaid.ed.gov),
• Create a username and password, and
• Enter all information that applies.

Email Address

Students should include the email address they check most frequently on the FAFSA to ensure faster communication from the Department of Education. Specifically, students will receive a link where they will be able
to view the results of the data they submitted on their FAFSA. In addition, the Financial Aid Office will use this email address to communicate with them until their official San Jacinto College email address has been assigned. The College strongly encourages all students to check their San Jacinto College email account at: www.san jac.edu/email. San Jacinto College will only send electronic communications to this email account.

Major Sources of Financial Aid

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. 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:

<table>
<thead>
<tr>
<th>GPA</th>
<th>Numerical Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>A</td>
</tr>
<tr>
<td>3.0</td>
<td>B</td>
</tr>
<tr>
<td>2.0</td>
<td>C</td>
</tr>
<tr>
<td>1.0</td>
<td>D</td>
</tr>
<tr>
<td>0.0</td>
<td>F or FX</td>
</tr>
</tbody>
</table>

A student is expected to maintain a minimum cumulative GPA of 2.0 based upon the total 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. 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 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. 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.

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 Financial Aid Office will determine whether or not students have successfully passed at least 75 percent of overall hours attempted. Students are required to maintain a minimum GPA of 2.0 on their institutional coursework. The College considers grades of A through D as successfully passed; however, students on probation or academic plan status must pass all classes with a C or higher.

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

2. Time Frame Component
The Financial Aid Office will determine the total number of hours a student has attempted. Courses for which a student has received an incomplete, from which they have withdrawn, that have been repeated, and that are defined as college preparatory classes will be counted in the total. 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 they are 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 on file and must request to have the transcript(s) evaluated through the Admissions Office. A student who has attended a school outside the United States must also have the transcript(s) evaluated, at their own expense, by a foreign transcript evaluation company on a course-by-course basis.

Warning
A student who has not met Satisfactory 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 will be placed on financial aid suspension and is not eligible to receive further consideration for financial aid.
Maximum Time Frame
A student who has attempted more than 90 hours will be placed on financial aid suspension for max hours attempted 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.

Appealing Financial Aid Suspension/Regaining Eligibility for Aid
A student who has been suspended from receiving financial aid due to a low GPA and/or Pass Rate Component may regain eligibility by:
- Enrolling at his/her own expense and bringing himself/herself into compliance with the requirements.
- Filing an appeal with the Financial Aid Office prior to the middle of the semester.

A student who has exceeded the maximum time frame component must file an appeal to be able to receive consideration for financial aid.

The appeal for all satisfactory academic progress components 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. Other documentation will be required in addition to what is listed on the appeal form. Students who have an Incomplete grade cannot submit an appeal until a final grade has posted.

If an appeal is approved, the student is placed on Financial Aid Probation for the term listed in the appeal. The student is required to meet the conditions stated on the approval letter without exception to continue receiving aid under the Academic Plan status. In addition, first-time appeal approval students are required to meet the conditions of the Program for Financial Education during their first term. 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 renders all decisions 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 TM if they begin their study mid-year or during the summer at San Jacinto College. Per regulation, during the seven-day period after a student’s name is added to the NSLDS TM list, the College may not authorize or disburse Title IV aid to his or her 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. View My Registration, Financial Aid & Student Record,
3. View My Student Record, and
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
Return to Title IV (R²T₄) applies 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. Also, if the student receives any combination of FX (Failure due to non-attendance) and grades of F or W, he or she is subject to R²T₄. Students receiving federal monies to fund their college education are subject to the R²T₄ calculation. Federal guidelines require the student (and parent in the case of a PLUS Loan) and/or institution to repay any unearned portion of the federal funds credited or disbursed.

The federal funds that are subject to the R²T₄ calculation are the Pell Grant, Federal Supplemental Education Opportunity Grant (SEOG), Subsidized and Unsubsidized Direct Loans, and Parent Loans for Undergraduate Students (PLUS).

Additional Restrictions for Subsidized, Unsubsidized, and PLUS Loans
Subsidized and Unsubsidized Direct Loans and Parent Loans for Undergraduate Students (PLUS) have additional restrictions. Students and parents may owe the College any loan amount certified and disbursed due to any indebtedness created by the return calculation whether or not the student officially or unofficially withdraws.

Official Withdrawals
Official withdrawal occurs when the student completes the withdrawal process through the web, the Admissions office, or the Educational Planning, Counseling, & Completion 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 withdrawn, the Financial Aid Office calculates the amount of earned and unearned aid for the period of enrollment. Notice will be sent to the student at the address on record if any indebtedness is created by the withdrawal and a copy is uploaded to the student’s record in SOS.

Unofficial Withdrawals
Any student who fails to complete at least one class successfully due to non-attendance during the period of enrollment is considered to
have unofficially withdrawn. After grades are posted at the end of each term, the Financial Aid office completes a Return to Title IV Calculation. Students may refer to the Withdrawals, Grades, and the Return of Title IV Funds section. If San Jacinto College cannot determine the last date of attendance, the mid-point of the student’s enrollment will be used as the withdrawal date.

**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 near the middle of the semester. For classes that are 10 weeks or longer, attendance is also reviewed around 70% of the semester (to make a total of 3 collection points). 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 US 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 is 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 person at the Admissions Office or the Educational Planning, Counseling, & Completion offices. Students may refer to the Official Withdrawal section. Students are urged to take class enrollment and attendance seriously, consider the amount of time required to complete a class successfully and plan the number of hours in which they enroll. If necessary, 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 US 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.

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**Types of Financial Aid Programs**

**Grants (Aid That Does Not Have to Be Repaid)**

**Federal Pell Grants** are available to students who demonstrate financial need within the established federal guidelines. To determine need, the US Department of Education uses a standard formula established by Congress to evaluate the information students and/or their parent/spouse provide 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 contribute financially toward the cost of the student’s 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.

**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.

**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.

**Texas Educational Opportunity Grant** 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 $5,609 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 an associate or baccalaureate degree, 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 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 grants.

**Loans (Aid That Must Be Repaid)**

The William D. Ford 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).

First-time borrowers are subject to regulations from the Department 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 percent rule: the student has no outstanding balance of principal or interest on a loan or the student has previously received loans that are paid in full. If the student is a first-time borrower under this law, he or she is only eligible for the subsidized loan for a period of 150 percent of the published program. Students may visit studentloans.gov (http://studentloans.gov) for more details on this law.

The Direct Loan Unsubsidized is not awarded on the basis of demonstrated financial need, and 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 Direct Loan funds.

Loan Application Process begins with the student completing the FAFSA and submitting 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 (http://www.studentloans.gov).

To apply for the Direct PLUS, students must complete the FAFSA and parents must complete the loan certification request at www.studentloans.gov (http://www.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 direct 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 on to www.studentloans.gov (http://www.studentloans.gov) to complete the exit counseling session and learn about repayment options.

Students may borrow additional loan funds through private lenders. These alternative loans are subject to different requirements and interest rates from Direct Loans. Once the alternative loan has been certified by San Jac, it is subject to a rescission period that may be up to 14 days depending on the lender. The rescission period is determined by the lender. If the loan has been certified, and the rescission period has been met, the student can expect a disbursement from the alternative loan on the same schedule as a direct loan. If there are any outstanding requirements specific to the student’s alternative loan, the disbursement may occur after the direct loan disbursement dates. A list of lenders who have conducted business with San Jacinto College can be found on the San Jacinto College Financial Aid web page.

Note: Students who 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. Fall scholarship applications open in February and close in June. Spring scholarship applications open in August and close in October. Students may visit www.sjcd.academicworks.com (http://www.sjcd.academicworks.com). All scholarships must be reported to the Financial Aid Office. 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. An offer of FWS does not guarantee a job or job placement.

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

How Aid is Disbursed

San Jacinto College has changed from a single disbursement to five disbursements per term. This is based on a sixteen-week term. Students enrolled in other parts of term (classes that are shorter than 16 weeks) may experience an increase or decrease in the number of disbursements.

Residency

Residency 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/ (http://www.statutes.legis.state.tx.us) and the Texas Higher Education Coordinating Board Rules 21.727 at www.thecb.state.tx.us/ (http://www.thecb.state.tx.us).

For tuition purposes, a student is 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 for the College to determine their status as either a Texas resident, non-resident, or international student.
Relevant Definitions

Domicile:

- A person's principal, permanent residence to which the person intends to return after any temporary absence.

Dependent – A person who:

- is less than 18 years of age and has not been emancipated by marriage or court order; or
- 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-US Citizens Eligible to Establish Texas Residency

Non-US citizens who are eligible to domicile in the US must prove they have lived in Texas for one year and show proof of their eligibility to domicile.

Permanent residents of the US may be asked to furnish their permanent resident (green) card or I-551 passport approval stamp.

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

An eligible non-immigrant who is eligible to establish domicile in the US may be eligible for classification as a Texas resident. The Texas Higher Education Coordinating Board (THECB) has identified eligible students to be

1. holders of unexpired visas with status of 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-2, N-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

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

Texas Resident Out-of-district

Students may refer to rules in the Texas Resident section above. Students must first meet all qualifications in that section.

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

Texas Resident In-district

Students may refer to rules in the Texas Resident section above. Students must first meet all qualifications in that section.

The College will designate a resident student with an in-district residency classification if the student or the eligible person upon whom the dependent student is basing his or her residency resides inside the San Jacinto College taxing district, as determined by the Harris County Appraisal District (www.hcad.org (http://www.hcad.org)) or tax documents. Students may not use post office boxes to designate themselves as Texas-residents 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 Educational Planning, Counseling, & Completion 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 student 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 that will establish Texas residency. For more information, students may refer to the Texas Higher Education Coordinating Board website (http://www.collegeforalltexans.com/index.cfm?objectid=6D1466D9-AEA5-DE00-C12F3F75E7367718).

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 Higher Education Coordinating Board website. (http://www.collegeforalltexans.com/index.cfm?objectid=6D1466D9-AEA5-DE00-C12F3F75E7367718) The Educational Planning, Counseling, & Completion Office or Admissions 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 students.

**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. Students may refer to the Texas Resident section of the Texas Higher Education Coordinating Board Rules for a list of support documentation.

**Military Personnel**

Military personnel or their families should check with the Veteran Services and/or refer to the rules found in the Texas Education Code at www.statutes.legis.state.tx.us and the 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.
STUDENT INFORMATION

- Academic Calendar (p. 330)
- Annual Security and Fire Safety Report (p. 330)
- Campus Carry (p. 333)
- How to Request Public Information (p. 333)
- Registration (p. 333)
- Services and Activities (p. 336)
- Student Grades and Records (p. 339)
- Student Rights and Responsibilities (p. 352)
- Veteran Information (p. 365)

Academic Calendar

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

www.sanjac.edu/academic-calendar

Annual Security and Fire Safety Report

The San Jacinto Community College District is committed to assisting all members of the San Jacinto College community in providing for their own safety and security. In accordance with the Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, the annual security compliance document is available on the San Jacinto College Police Department, website at www.sanjac.edu/security-report. Crime statistics for the past three years are also available at http://ope.ed.gov/campussafety/#/.

A hard copy of the San Jacinto College Annual Security and Fire Safety Report is available for review at each of the campus police departments.

Central Campus

Maintenance/Police Building
C34.105
8060 Spencer Highway
Pasadena, Texas 77505

North Campus

Slovacek Student Center
N12.205
5800 Uvalde Road
Houston, Texas 77049

South Campus

J.D. Bruce Student Center
S11.100
13735 Beamer Road
Houston, Texas 77089

Maritime Technology and Training Center Maritime Campus

M1.210q
3700 Old Highway 146
La Porte, Texas 77571

The website and report contain information regarding campus security and personal safety, including topics such as: crime prevention, College police law enforcement authority, crime reporting policies, disciplinary procedures, and other matters of importance related to security on the campuses. They also contain information about crime statistics for the three previous calendar years concerning reported crimes that occurred on campus; in certain off-campus buildings or property owned or controlled by San Jacinto College; and on public property within, or immediately adjacent to and accessible from, the campuses.

Campus Carry

Purpose

The purpose of this policy is to comply with the requirements of S.B. 11, which is generally referred to as the "campus carry" law, to allow the concealed carrying of handguns by license holders on the campuses of certain institutions. The policy grants permission for a valid Texas License to Carry holder (LTC) to generally carry a concealed handgun on campus. The policy also identifies certain campus locations and activities that a valid LTC holder may be excluded from carrying a handgun due to previously existing State of Texas Statutes or exclusion zones identified by the College.

Policy Statement

The San Jacinto Community College District is committed to providing a safe environment for students, employees, affiliates and visitors and to respecting the right of individuals licensed to carry a handgun in the state of Texas. Individuals licensed to carry may do so on campus except in locations and at activities prohibited by law or by this policy. The carrying of any handgun by an unlicensed person or the open carry of a handgun is not permitted in any place at the College.

1. Individuals who hold a valid Texas License to Carry a Handgun (LTC), including a valid Texas Concealed Handgun License, (license holders) may (1) carry a handgun on campus so long as the handgun is not in plain view, on or about their person at all times and under their control (e.g., purse, backpack, bag, etc.) or (2) secure their handgun in a locked motor vehicle. The open carrying of a handgun on campus is restricted to authorized law enforcement officers and other persons who may be designated by appropriate law enforcement agencies.

All other weapons are strictly prohibited for students, faculty, staff and visitors; their possession on campus is grounds for immediate action by law enforcement. See Section 46.05 of the Texas Penal Code for a list of weapons.

A license holder's handgun must be concealed at all times. In compliance with Texas Penal Code §46.035(a-1), a license holder may not carry a partially or wholly visible handgun on campus premises or on any college driveway, street, sidewalk or walkway, parking lot, parking garage or other parking area. Anyone intentionally or knowingly displaying a handgun in plain view for others to see is in violation of Texas law.

A license holder must display his or her License to Carry when directed by a law enforcement officer in accordance with section 411.205 of the Texas Government Code. Otherwise, an individual is not required to disclose whether he or she is a license holder in order to participate in any program or service offered by the College, except as required by law.

A license holder may not carry a handgun if he/she is intoxicated under Texas Penal Code 46.035(d).

2. It is the responsibility of license holders to carry their handguns on or about their person at all times. “About” the person means that
a license holder may carry a holstered handgun in a backpack or handbag, but the backpack or handbag must be close enough that the license holder can grasp it without materially changing position. A license holder who carries a handgun on campus must carry it in a holster that completely covers the trigger and the entire trigger guard area. The holster must have sufficient tension or grip on the handgun to retain it in the holster even when subjected to unexpected jostling.

The College does not provide storage for handguns.

The open carry of handguns is not permitted on college premises.

3. The College is often the site of Pre-K-12 school-sponsored activities, such as field trips. When a Pre-K-12 school-sponsored activity is conducted at a particular location, the carrying of concealed handguns is prohibited. A sign shall be posted reading “Pre-K-12 school-sponsored activity in progress” during these activities. “School-sponsored activities” for purposes of this policy are defined as: tours, demonstrations, field trips, events, clubs, camps, clinics, programs, etc., held on College property that are authorized by a K-12 school district or individual school(s) as a curricular, co-curricular or interscholastic activity and are managed or supervised in part by the district or school or district or school employee.

Upon a survey of the College campuses, areas identified as routinely hosting such school-sponsored activities shall be posted on the College’s rules and regulations regarding campus carry.

4. Texas Penal Code §46.03(a)(2) excludes license holders of handguns from carrying a handgun on premises of a polling place on the day of an election or while early voting is in progress according to Policy 2-19. A sign shall be posted at any polling place located on campus from the commencement of early voting through Election Day that reads either “Polling Place” or “Vote Here.” (See Electioneering Procedure 2-19A)

5. Texas Penal Code §46.035(b)(6) excludes license holders of handguns from carrying a handgun on the premises of a church, synagogue or other established place of religious worship. A sign shall be posted that conforms to Section 30.06 of the Texas Penal Code.

6. Texas Penal Code §46.035(b)(2) excludes license holders of handguns from carrying a handgun where a high school, collegiate or professional sporting event or interscholastic event is taking place, unless the license holder is a participant in the event and a handgun is used in the event. Notice shall be given for all collegiate sporting events. If possible, for ticketed sporting events this notice should be given by means of a written communication on the back of or appended to, the ticket. Vendors and others who are permitted to enter the premises without a ticket shall be provided written notice through other means. A sign shall be posted that conforms to Texas Penal Code, Section 30.06.

7. The concealed carry of handguns shall be prohibited in areas for which state or federal law, licensing requirements or contracts require exclusion at the exclusive discretion of the state or federal government or are required by a campus accrediting authority. Where appropriate, signage must conform to the overriding federal or state law requirements. Otherwise, notice conforming to Texas Penal Code §30.06 must be provided.

8. The concealed carry of handguns shall be prohibited in patient-care areas, including those in which professional mental health and counseling services are provided. A sign shall be posted that conforms to Texas Penal Code, Section 30.06.

9. The concealed carry of handguns shall be prohibited in areas in which formal hearings are being conducted pursuant to Code of Student Conduct (Student Handbook); Academic Hearings; Veterans Appeal Hearings; Financial Aid Appeal Hearings; Employee Hearings; and Employee Grievances. A sign shall be posted that conforms to Texas Penal Code, Section 30.06.

10. The concealed carry of handguns shall be prohibited in areas where the discharge of a firearm might cause great harm, such as laboratories with extremely dangerous chemicals, biologic agents, explosive agents, critical infrastructure and areas with equipment that is incompatible with metallic objects, such as magnetic resonance imaging machines. A sign shall be posted that conforms to Texas Penal Code, Section 30.06.

11. Counselors, staff and volunteers who work in a campus program for minors must, as a condition of their participation, agree not to carry a concealed handgun on the grounds or in buildings where the program is conducted. Parents of attendees must also agree, as a condition of their child’s participation, not to carry a concealed handgun on the grounds or in buildings where the program is conducted. “Campus program for minors” is defined as to provide oversight and training for camps and programs involving minors held on College premises or operated by the College which have recreational, athletic, religious or educational activities for the campers. This includes all camps or programs covered by Texas Education Code, Chapter 51, Section 51.976, as well as any day camp, activity or University Interscholastic League (“UIL”) event sponsored by the College. A sign shall be posted that conforms to Texas Penal Code, Section 30.06.

This policy does not apply to College course-based academic service learning or research approved by the Institutional Review Board (“IRB”).

12. The College shall amend the Code of Student Conduct, Faculty Handbook and San Jacinto Policy and Procedure Manual to provide that causing the accidental or intentional showing of a firearm or the accidental discharge of a firearm is conduct subject to disciplinary action.

13. Exclusion zones created by Texas Penal Code §§46.03 and 46.035 as well as by the rules and regulations enacted under S.B. 11 may sometimes comprise only a portion of a building. In some instances it may not be feasible to exclude concealed handguns only from the designated exclusion zones. The following factors and principles shall govern the implementation of these rules and regulations in those buildings in which some, but not all parts are designated as exclusion zones.

**Governing factors:**

- The percentage of assignable space or rooms in a building that are designated as exclusion zones
- The extent to which the area (or areas) designated as exclusion zones are segregated from other areas of the building
- The extent to which use of the building and hence its status as an exclusion zone, varies from day-to-day or week-to-week

**Governing principles:**

- If a small number of rooms or a small fraction of assignable space in a building is subject to exclusion, only the rooms or areas that qualify for exclusion should be excluded.
- If 85 percent or more of the total building in terms of number of rooms or assignable space is subject to exclusion or if the
excludable space is not segregated from other space, then as a matter of practicality, the whole building may be excluded.

- Appropriate signage shall be posted that conforms to Texas Penal Code, Section 30.06.

14. The College shall develop training materials particular to San Jacinto College on how to respond to an active shooter situation. These shall be incorporated in the active shooter training and all faculty and staff shall be required to complete this module. All students are encouraged to complete training on how to respond to an active shooter situation.

15. The College shall develop and post in a prominent place a detailed Campus Carry FAQ.

16. The College shall develop materials that educate and inform current and prospective San Jacinto College students about campus carry and how it is being implemented.

17. To the extent possible, areas within gun-exclusion zones should be made available on a scheduled basis to faculty and staff. These spaces can be used for conferences that faculty or staff would prefer to conduct in a gun-exclusion zone.

18. The following factors and principles shall govern the implementation of exclusions or allowances for Graduation ceremonies.

**Governing factors:**

- Off-campus location shall follow the venue's rules and regulations in regards to the permitted carrying of firearms.
- On-campus location shall follow the use of the building and/or exclusion zone criteria set forth herein.

19. The Campus Safety and Security Council, appointed by the Chancellor, shall be established and tasked, at a minimum, with the following responsibilities:

- Support the consistent implementation of these policies;
- Provide a review process for recommendations to the Chancellor;
- Compile, maintain and provide a periodic review of the premises where license holders are prohibited from carrying a handgun.

A student, or a member of the faculty or staff of the College may appeal a decision regarding the implementation of a policy or procedure contained herein to the Campus Safety and Security Council for consideration. A further appeal of the decision of the Campus Safety and Security Council may be submitted to the Vice Chancellor of Fiscal Affairs for consideration. The Vice Chancellor of Fiscal Affairs may choose to make a final decision or submit the appeal to the Chancellor for consideration. The Chancellor may approve, reject or modify the decision in question or may submit the issue to the Campus Safety and Security Council for reconsideration. The decision of the Chancellor to approve, reject or modify a decision is final.

Additional policies or exclusion areas not provided for in this policy will not be the subject of or considered as a matter of appeal. In accordance with Texas Government Code, Section 411.2031, the Chancellor is authorized to enact reasonable rules and regulations regarding the concealed carry of handguns on campus.

20. Not later than Sept. 1 of each even-numbered year, the College shall submit a report to the Texas Legislature and to the standing committees of the Legislature with jurisdiction over the implementation of these policies that:

- Describes the rules and regulations adopted by the College regarding the carrying of concealed handguns on its campuses; and
- Outlines the reasons the College established the provisions adopted.

### Campus Carry Facts and Helpful Hints

Campus Carry took effect for San Jacinto College on Aug. 1, 2017.

- License to Carry (LTC) holders may carry a concealed handgun on campus.
- The handgun must remain concealed and within arm’s reach of the license to carry holder.
- Handguns may not be openly carried.
- Handguns may not be openly displayed at any time.
- No other prohibited weapons may be carried.
- Only members of the San Jacinto College Police Department may ask someone if they are licensed to carry a concealed handgun.
- San Jacinto College does not provide handgun storage.
- Handguns may be stored in a locked motor vehicle.
- There will be several areas of campus called gun exclusion zones where a license to carry holder may not enter with a concealed handgun.
- License to carry holders are responsible for knowing gun exclusion zone locations.

### What is a Gun Exclusion Zone?

An area of campus, building, or room where the possession of a handgun is prohibited by current Texas statute; or an area of campus, building, or room designated and approved by the Strategic Leadership Team (SLT) and Board of Trustees in which the possession of a handgun is prohibited.

Gun exclusion zones will be clearly marked.

### Where May a License to Carry Holder Carry a Concealed Handgun?

Any area that is not designated as a gun exclusion zone. Examples:

- Public or private driveway
- Streets
- Sidewalk or walkway
- Parking lot, parking garage, or other parking area
- Hallways
- Classrooms
- Offices open to the general public
- Financial Aid
- Nursing Labs
- Culinary Labs
- Gym/Wellness Centers

If you see someone with a handgun on campus:
Definitions

Campus: All land and buildings owned or leased by the San Jacinto Community College District.

College: The San Jacinto Community College District.

Concealed Carry: The Texas Department of Public Safety defines a concealed handgun as a handgun not openly discernable to the ordinary observation of a reasonable person.

Employee: A full-time or part-time employee of the San Jacinto Community College District as defined by Human Resources policy and procedure.

Exclusion Zones: An area of campus, building, or room where the possession of a handgun is prohibited by current Texas statute; or an area of campus, building, or room designated and approved by the Strategic Leadership Team (SLT) and Board of Trustees in which the possession of a handgun is prohibited.

Handgun: A handgun is any firearm that is designed, made, or adapted to be fired with one hand.

License to Carry Holder: A person licensed to carry a concealed handgun under Chapter 411 of the Texas Government Code.

*On or about their person*: Means a person licensed to carry a handgun must carry a handgun in a manner that the handgun is close enough to the license holder that he or she can reach it without materially changing position.

Patient-Care Areas: An area, including research areas, that involves the treatment or evaluation of a medical or mental health condition of a patient by a licensed health care provider or under the supervision or direction of a licensed health care provider and that results in a formal record of treatment.

Student: A currently enrolled student of the San Jacinto Community College District as defined by instruction policy and procedure.

How to Request Public Information

These are the general guidelines for requesting information in the possession of the College:

1. Your requests must be in writing. Only written requests trigger the College's obligations under the Texas Public Information Act.

2. Requests should be addressed to the College's Public Information Officer. Teri Crawford, Vice Chancellor for Marketing, Public Relations, and Government Affairs, 4624 Fairmont Parkway, Suite 210, Pasadena, Texas, 77504, 281-998-6152, SJC.TPIAResquest@sjcd.edu.

3. Requests must be addressed to the Public Information Officer to trigger an obligation under the Texas Public Information Act. Your request should be for documents or other information already in existence. The College is not required to answer questions, perform legal research, or respond to a continuing request to supply future information. The College is not required to create new documents.

Change of Name or Address

The College expects students who change their names, residences, email, or mailing addresses to notify the Admissions or Educational Planning, Counseling, & Completion offices immediately. The College considers any communication sent to the name and address given by a student on College records to be properly delivered.

Registration

Web Registration- Secure Online System (SOS)

The College's online (web) registration system is called the Secure Online System (SOS). Once students have been admitted, they may access SOS at www.sanjac.edu/soslogin.

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

The following steps will give students access to SOS. Students will:

1. Access the College website at www.sanjac.edu/soslogin, then click the blue SOS login box in the middle of the page.

2. Enter their generated ID number, which is a capital G with the assigned eight-digit number.

3. Enter the six-digit PIN provided when students claimed their account.

4. Select My Registration and follow the system prompts.

5. Select the term in which they want to enroll. The College offers multiple terms.

6. Select Step 5, Register for Classes. Students may search by subject, campus, and class times, or may simply enter the CRN for desired classes, if known.

7. Select Submit Changes to save the requested classes or to determine if registration restrictions exist. When the schedule is correct, students select the View My Schedule link at the bottom of the page to have the system calculate the tuition due. Submitting changes will add charges if classes have started.

8. Select View Fee Assessment, and then select the Student Account Suite button. Students may refer to the Registration and Payment Schedule for payment deadlines.

9. Print the schedule and/or payment confirmation before exiting 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 are available in SOS. Students may:

- 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,
• Change confidentiality status,
• View financial aid information,
• View personal information, and
• Change their 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. Students incur 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
The second digit of the course number indicates the credit hours
associated with that course. The maximum course load during 16 weeks
is 18 hours. Only with the approval of the instructional Dean, students
may enroll in additional term hours of credit. The maximum course load
permitted during the summer term 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.

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. Working students should consider the
number of term hours they take in relation to the number of hours they
work per week.

Enrolling at Multiple Campuses
Students are encouraged to take classes at any of the College’s
campuses. Students wanting to take courses at multiple campuses
must calculate the time needed to drive, consider traffic conditions, time
needed to park, and the time to walk to class between one campus and
another prior to scheduling classes. The allotted time between classes is
10 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 students usually must leave one class period
unscheduled to allow enough time to safely travel from one campus to
the next. The number of times a student can be late to class calculates
into the excessive absences maximum and could cause students to
receive a failing grade in a class. Additionally, late students are disruptive
to the teaching and learning environment for all.

Parts of Term
The terms include a traditional full term of 16 weeks (fall and spring)
or 10 weeks (summer) as well as multiple shorter parts of term that the
College provides to enable students to enroll in courses throughout the
year. For example, the spring term includes a 16-week session, a 15-week
weekend session, two overlapping 12-week sessions, two eight-week
sessions, a six-week/ten-week combination and four four-week sessions.
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 four-year college or university should
select courses according to the curriculum requirements of the institution
they plan to attend. Transfer MAPS for particular universities are located
in the catalog under the Transfer Path tab and in My San Jac GPS.
Students should contact a college educational planner/counselor for
help in selecting courses if the university to which they are interested in
transferring is not listed.

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

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 as specified in the Course Load
section of the catalog.

Prerequisites or Co-requisites
Some course descriptions stipulate that students must earn credit for
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 the student has already completed that
course with a passing grade.

Minimum placement test scores in reading, writing, and/or mathematics
skills are prerequisites for most academic and college preparatory
courses. 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 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 their policy for enrollment services and GPA calculations for repeated courses. Students may be charged a higher tuition rate when registering for the same course three or more times as noted in the Tuition section of this catalog.

**Schedule Changes and Dropping Courses**

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. The student incurs 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 refund schedule lists drop deadline dates and refund percentages, www.sanjac.edu/refunds. Students enrolled in college preparatory courses must drop courses in person. If the student is unable to drop online or in person, he/she must contact the College at 281-998-6150 for assistance.

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/withdraw after the last published drop date. After the deadline, the College does not permit withdrawals, and students will receive a grade of A, B, C, D, F, or FX. Students may not attend any class from which they have dropped.

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.

**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**

San Jacinto College maintains a No Late Registration Policy. Registration is available until the day before the first day of class. The Admissions Office and Educational Planning, Counseling, & Completion can assist students with enrollment before the class starts. Registration dates and refund schedules can be found at www.sanjac.edu/refunds.

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

Dropping all courses for the term at the same time constitutes the intent to withdraw officially 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 students return all College-owned property and pay all outstanding debts of tuition and fines. San Jacinto College does not issue official transcripts for students who have outstanding debts or unreturned College property.

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

Students who enrolled as entering freshmen or first-time-in-college (FTIC) students during 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 of WL or 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 of WL or 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, F, or FX in the courses.

Students who remain enrolled in the course 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 and is listed on the College's website on the Refund Schedule, Drop, Attendance, and Grading Deadlines (https://www.sanjac.edu/refunds) page.

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 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 are 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. Students must inform the Educational Planning, Counseling, & Completion office of their intent to withdraw.

San Jacinto College will notify by email all new FTIC students each term that they are affected by the state’s six-drop limit and 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 six-drop limit policy. Grades included in the six-drop limit from transfer institutions must be appealed to the transfer institution.
Auditing a Course
Approval to audit a credit course may be granted to individuals who complete the audit application with the Admissions 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 Admissions Office and a parking permit from the Business Office.
- The College will post audited course work 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 as outlined in the Student Handbook and Code of Student 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. Students may refer to the Admissions Office for assistance in dropping an audit class.
- Senior citizens 65 and older may audit a credit course without paying up to six (6) credit hours of tuition.

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 and the applicant has not exceeded 90 previous college credit hours.

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; and
- Instructional videos.

Professional librarians are available in person and online to show students how to use the library and to help students locate information.

Students may submit mail reference inquiries through the library’s 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, students can place holds on books, renew books, and check personal library records. Students can also access library resources through Blackboard.

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

The libraries loan most books for three weeks. Students may renew books 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.

Students may request a TexShare card that provides access to materials from participating public and academic libraries across the state. The College’s students may use the interlibrary loan service 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. The library bills students full replacement costs plus late fees for lost or damaged materials.

Student Success Centers
The Student Success Centers on each campus offer free tutoring services to all students. Student tutors are certified by the College Reading and Learning Association and come highly recommended by their instructors. Located in the libraries, the Centers offer the following services:

- One-on-one tutoring;
- Group tutoring;
- Help with a wide range of subjects, including math, English, chemistry, biology, physics, geology, history, BCIS and accounting;
- Review sessions and TSI Assessment Prep sessions;
- Resources for checkout;
- Access to study rooms, computers and calculators; and
- Help with studying and test-taking skills.

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. The ILCs post lab hours 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, a division of Texas Health and Human Services Commission.
Services Commission and accredited by the National Association for the Education of Young Children. The College enrolls children 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.

Child Care Assistance
San Jacinto College works with Workforce Solutions to provide child care assistance. Students and employees are encouraged to visit the nearest San Jacinto College Financial Aid Office to complete an application.

Textbook Repurchase Policy
San Jacinto College bookstores, located on Central, North, and South campuses, are providers for all 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) also can be rented for an entire semester at significant savings, sometimes 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.

- The bookstore will provide a full refund in the original form of payment if textbooks are returned during the first week of classes with original receipt.
- With proof of a schedule change and original receipt, the bookstore will provide a full refund in the original form of payment during the first 30 days of classes.
- The bookstore cannot provide refunds on unwrapped loose-leaf books or shrink-wrapped titles that do not have the wrapping intact.
- The bookstore cannot provide refunds on Digital Content once accessed.
- Textbooks must be in the original condition.
- The bookstore cannot provide refunds or exchanges without original receipt.

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. Students may contact the bookstore for specific buyback dates.

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

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.

Student Services
San Jacinto College provides a comprehensive network of support services to create a supportive, stimulating academic environment that extends beyond the classroom. Student Services staff help students achieve their educational and career goals by providing knowledgeable assistance about various educational options including advising, financial aid, and student engagement opportunities for leadership, personal enrichment, and recreation.

Campus Activities
The goal at the Office of Student Engagement and Activities is to promote success inside and outside of the classroom by enhancing the student experience. College is not just about learning on the inside of the classroom. The College strives to create an environment where students feel connected to their alma mater by offering programs that open doors to student leadership, social events, volunteer opportunities in the local community, and programs that enhance 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 Engagement and Activities has information on over 100 student organizations across the campuses, festivals, activities, lecture series, community service projects, and leadership development programs. Student organizations are a major component of the Student Engagement 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 in the transition from college to career. Many employers see campus involvement as a key indicator of a student’s potential for success within his/her company. The College encourages students to participate in campus activities for both personal and professional enrichment.

Recreational and Intramural Sports
The San Jacinto College campus recreation 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, students may contact the campus Rec Sports department.

Services for Students with Disabilities
San Jacinto College does not discriminate on the basis of disabilities in admission or access to its educational programs. The College complies with Section 504 of the Rehabilitation Act of 1972 and the Americans with Disabilities Act (ADA) of 1990. Students with disabilities may be eligible for certain accommodations such as additional testing time, registration assistance, or interpreting services. The College’s Accessibility Services office assists students who may need accommodations. Students wishing to apply for accommodations should go to www.sanjac.edu/accessibility to complete the online application. Inquiries about accessibility services may be addressed to accessibility.services@sjcd.edu or by visiting the Educational Planning, Counseling, & Completion office on each campus.

Central campus: 281-478-2768
North campus: 281-459-7192
South campus: 281-922-3444

Any student with a question or concern about discrimination or harassment based on disability may file a complaint in accordance with Procedure 300 in the Student Handbook. Individuals who wish to file
Students with disabilities have the right to appeal accommodation decisions made through Educational Planning, Counseling, & Completion (EPCC). To appeal, an individual first will have needed to have completed the Accessibility Services Accommodation Application.

Individuals wanting to appeal the decision must do so in writing within 14 days of the notice of the accommodation decision. The appeal should include a copy of the original request for accommodation, documentation of disability, the accommodation decision, and the reasons why the individual is appealing the decision. The appeal is to be sent to the Director of EPCC (on each respective campus) who, after a review, will render a written decision, typically within two weeks or less.

For inquiries, students may call:
- Central campus: 281-478-2768
- North campus: 281-459-7192
- South campus: 281-922-3444

The Director of EPCC will provide students an opportunity to present information useful to understanding the appeal. The Director of EPCC may decide to uphold the previous accommodation decision, support the appeal request, decide on an alternative or decide that new information has been submitted that necessitates further review.

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 ADA, which allow students with disabilities access to all post-secondary educational programs and activities.

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

The College is committed to students’ complete success and that means helping them take the next step beyond course work and into the working world.

Career Services offers a variety of services to assist with career exploration, decision making, and job searches. Career Services also provides career assessments for students who are unsure about a major. Web-based tools to assist with career exploration give students the opportunity to explore their personality, interests, and values, which are important factors in choosing a career. An online database is available to search for full-time, part-time, on-campus, and seasonal employment. Throughout the year, Career Services offers workshops on résumé writing and interviewing, as well as career fairs, networking events, and employer panels.

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

For more information or how to contact a Career Services, students may 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.

Email service is provided to all San Jacinto College students. This account will be used by the College as the primary mail 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.

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. The College will always send any emergency notifications 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
The College provides email service 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. The College automatically generates an email address 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, Counseling, & Completion
Educational Planning, Counseling, & Completion (EPCC) provides comprehensive services to help students with educational planning, career and personal development, and short-term personal counseling.

The purpose of EPCC 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 establish a pathway to student success and the realization of educational, career, and life goals.

Professional counselors are available to help students understand how their skills, values, and interests can assist them in identifying a career path.
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, students may visit www.sanjac.edu/educational-planning.

### 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)

The College calculates earned grade points 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 12 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 College computes the grade point average (GPA) 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. GPA computations include only courses completed at San Jacinto College. For repeated courses, the College uses only the highest grade in computing the cumulative GPA. Grades of I, N, W, and WL are neutral, and the College does not include these grades in any GPA.

#### Overall Institution GPA

The College has established 2.0 as the minimum GPA requirement for a student to remain in good academic standing. Students may refer to the Academic Status section for more information. The College calculates the transcript GPA 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 that may not be repeated for credit, the Colleges uses only the highest grade earned in the course to determine the GPA.

#### Scholarly Achievement Eligibility for Honors and Awards Received

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

### Phi Theta Kappa (PTK)

The College also recognizes the Phi Theta Kappa (PTK) honor society. 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 GPA, receive an invitation for membership from the chapter at San Jacinto College, and must adhere to the moral standards of the society.

### 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 GPA in all technical courses, a recommendation from an instructor and have completed 3-5 hours of community service.

#### Honors Program

The College Honors program provides 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; 1,100 SAT score (reading + math); or 26 ACT score. Documentation, such as official transcripts, must be provided with the Honors program application.

#### Graduates with a 4.0 Grade Point Average

Students who have applied for graduation for a particular graduation period will be reviewed for GPA, and those with a 4.0 will be identified in the commencement program. The information may be published in other College media and shared with other media entities.

### Final Examinations

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

### Grading System

Faculty enter term grades for all students electronically at the end of the term. Once faculty have entered the grades, the College recalculates GPAs and academic standings are re-calculated and posts these 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>Definition</th>
<th>Grade Points per Credit Hour Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent, superior achievement</td>
<td>4 grade points</td>
</tr>
<tr>
<td>B</td>
<td>Good, above average achievement</td>
<td>3 grade points</td>
</tr>
<tr>
<td>C</td>
<td>Average, acceptable achievement</td>
<td>2 grade points</td>
</tr>
<tr>
<td>D</td>
<td>Passing, marginal achievement</td>
<td>1 grade point</td>
</tr>
<tr>
<td>F</td>
<td>Failure, unsatisfactory achievement</td>
<td>0 grade points</td>
</tr>
</tbody>
</table>
In incomplete (I) is a temporary grade that indicates 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 instructor. 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 instructor. Faculty may not assign grades of NG.

Withdrawal (W)

The College awards a grade of W 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.

Withdrawal within the Limit (WL)

The College awards a grade of WL 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 WL is the indicator that this withdrawal is counted in the six drop limit. An affected student is limited to six grades the equivalent of WL from all Texas public colleges and universities combined.

Failure, Excessive Absences (FX)

Faculty 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, faculty must report the last date the student attended the course. The College will not post grades of FX 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.

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 instructors 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, students may 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, instructors may prohibit the students who accumulate four hours of absence in classes meeting three hours per week or eight hours of absence in classes meeting six hours per week from attending class. Three unexcused tardies count as one unexcused absence.

An instructor also has the 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. Students may 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 Educational Planning, Counseling, & Completion office; informing the instructor of the intent to withdraw is not sufficient. The Withdrawal from Courses section that follows provides 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.

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 he or she believes is 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 are found in Grade Appeals Complaint Procedure 100 under Student Rights & Responsibilities section.

**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 guarantees 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 admissions office on his/her 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; and
   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 the Provost at his/her campus in writing 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 (AAS) 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 AAS 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 that the student completed. The employer must specify the areas of deficiency within 90 days of initial employment.
5. The student must complete all retraining within a calendar year from the time the educational plan is agreed upon.
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 that have been substituted for required courses specified in the degree or certificate program.

**Academic Status**

The College calculates a student’s academic status each term (fall, spring, and summer) based upon previous academic status, term grade point average (GPA), and cumulative GPA. The College includes all credit courses taken at San Jacinto College, including college preparatory courses, in the calculation except that the College counts only the highest
Academic Suspension Period

Suspended students must sit out one long term (fall, spring, or the entire summer session). After the student has completed the suspension period, he or she must request re-admission and obtain advising with Educational Planning, Counseling, & Completion before being eligible to enroll again. The College will notify students placed on academic suspension 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, Counseling, & Completion 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 the student may take, specific grades the student must attain (e.g., C or above; student may not withdraw), requirements for periodic progress reports from the instructor(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 with Educational Planning, Counseling, & Completion. 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 Suspension

Students admitted from other institutions on academic suspension will be treated the same as students from San Jacinto College on suspension as described above. Students who fail to report a transfer academic status of suspension to gain admission may be immediately withdrawn without any refund of tuition paid.

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

Student Inquiries

Students should address inquiries about student grades and records to the Educational Planning, Counseling, & Completion office at 281-998-6150.
Good Standing  | Academic Warning  | Academic Probation  | Academic Suspension
--- | --- | --- | ---
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:
1) If the overall institution GPA is 2.0 or greater when the grades from the recently completed term are included.
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.

At the end of the first term in which the student was on academic warning status, 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 warning status.

At the end of any term in which the student was on academic warning status, these are the possibilities:
1) If the overall institution GPA is 2.0 or higher, the student’s status will revert to good standing.
2) If 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, the student’s overall institution GPA falls below 2.0, the student will be placed on academic probation and both the student’s overall institution GPA and his/her GPA from that completed term fall below 2.0, the student will be placed on academic suspension.

Note: If at the end of any term in which the College recalculates the overall institution GPA, 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 student’s overall institution GPA falls below 2.0, the student will again be placed on academic warning status.

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. The following policies are in effect at San Jacinto College:

- 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;
- Credit will be awarded based on the College catalog in effect at the time the student took the test;
- A student who has previously received a grade (A, B, C, D, F, FX, W, WL, 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; and
- The College does not give residence credit for CLEP, AP, IB, or internal examinations, and does not include credit for these exams in GPA calculations.

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

San Jacinto College Central campus, North campus, and 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 these three campuses.

<table>
<thead>
<tr>
<th>CLEP Exam</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; ENGL 2328</td>
<td>6</td>
</tr>
<tr>
<td>English Literature</td>
<td>ENGL 2322 &amp; ENGL 2323</td>
<td>6</td>
</tr>
<tr>
<td>College Algebra</td>
<td>MATH 1314</td>
<td>3</td>
</tr>
<tr>
<td>Subject</td>
<td>Course Code</td>
<td>Hours of Credit</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM 1311/CHEM 1111</td>
<td>4</td>
</tr>
<tr>
<td>Calculus</td>
<td>MATH 2413</td>
<td>4</td>
</tr>
<tr>
<td>French</td>
<td>FREN 2311/FREN 2312</td>
<td>6</td>
</tr>
<tr>
<td>French</td>
<td>FREN 1411/FREN 1412</td>
<td>8</td>
</tr>
<tr>
<td>German</td>
<td>GERM 2311/GERM 2312</td>
<td>6</td>
</tr>
<tr>
<td>German</td>
<td>GERM 1411/GERM 1412</td>
<td>8</td>
</tr>
<tr>
<td>Spanish</td>
<td>SPAN 2311/SPAN 2312</td>
<td>8</td>
</tr>
<tr>
<td>Spanish</td>
<td>SPAN 1411/SPAN 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:</td>
<td>HIST 1301</td>
<td>3</td>
</tr>
<tr>
<td>Early Colonization to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1877</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of the US II:</td>
<td>HIST 1302</td>
<td>3</td>
</tr>
<tr>
<td>1865 to Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principles of</td>
<td>ECON 2301</td>
<td>3</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principles of</td>
<td>ECON 2302</td>
<td>3</td>
</tr>
<tr>
<td>Microeconomics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory</td>
<td>PSYC 2301</td>
<td>3</td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory</td>
<td>SOCI 1301</td>
<td>3</td>
</tr>
<tr>
<td>Sociology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Civilization I:</td>
<td>HIST 2311</td>
<td>3</td>
</tr>
<tr>
<td>Ancient Near East to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1648</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Civilization II:</td>
<td>HIST 2312</td>
<td>3</td>
</tr>
<tr>
<td>1648 to Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>ACCT 2301</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Business</td>
<td>BUSI 2301</td>
<td>3</td>
</tr>
<tr>
<td>Law</td>
<td></td>
<td></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 Educational Planning, Counseling, & Completion 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>Biology</td>
<td>3</td>
<td>4</td>
<td>BIOL 1306/BIOL 1106</td>
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<tr>
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<td>4</td>
<td>8</td>
<td>BIOL 1306/BIOL 1106 and BIOL 1307/BIOL 1107</td>
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<tr>
<td>Calculus AB</td>
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<td>Calculus AB Subscore</td>
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<td>Calculus BC</td>
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<td>MATH 2413, MATH 2414</td>
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<td>Chemistry</td>
<td>3</td>
<td>4</td>
<td>CHEM 1311/CHEM 1111</td>
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| Chemistry        | 4             | 8               | CHEM 1311/CHEM 1111 and CHEM 1312/CHEM 1112 |
| Chinese Language/| 3             | 8               | CHIN 1411 and CHIN 1412 |
| Culture          |               |                 |               |
| Computer Science A or AB | 3 | 3 | COSC 1336 |
| Economics Macro  | 3             | 3               | ECON 2301     |
| Economics Micro  | 3             | 3               | ECON 2302     |
| English Language/| 3             | 3               | ENGL 1301     |
| Composition      |               |                 |               |
| English Literature/Composition | 3 | 3 | ENGL 1302 |
| European History | 3             | 3               | HIST 2311     |
| French Language  | 3             | 8               | FREN 1411 and FREN 1412 |
| French Literature| 3             | 8               | FREN 1411 and FREN 1412 |
| German Language  | 3             | 8               | GERM 1411 and GERM 1412 |
| Government and Politics-US | 3 | 3 | GOVT 2305 |
| History-US       | 3             | 3               | HIST 1301     |
| Human Geography  | 3             | 3               | GEOG 1302     |
| Music Theory (Aural Subscore) | 3 | 2 | MUSI 1216 |
| Music Theory (Non-Aural Subscore) | 3 | 2 | MUSI 1211 |
| Physics 1 (A)    | 3             | 4               | PHYS 1301/PHYS 1101 |
| Physics 2 (B)    | 3             | 8               | PHYS 1301/PHYS 1101 and PHYS 1302/PHYS 1102 |
| Physics C-       |               |                 | PHYS 2326     |
| Electrical and Magnetic | 3 | 4 | PHYS 2325 and PHYS 2125 |
| Physics C-       |               |                 | PHYS 2325 and PHYS 2125 |
| Mechanics        | 3             | 3               | PSYC 2301     |
| Spanish Language | 3             | 8               | SPAN 1411 and SPAN 1412 |
| Spanish Literature| 3             | 8               | SPAN 1411 and SPAN 1412 |
| Statistics       | 3             | 3               | MATH 1342     |
| Studio Art (2D Design) | 3 | 3 | ARTS 1311 |
| Studio Art (3D Design) | 3 | 3 | ARTS 1312 |
College to receive credit by departmental examination. Students may only attempt internal (departmental) challenge exams 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 Educational Planning, Counseling, & Completion to authorize the posting of credit as appropriate. The credit will count for residency. The credit hours will count in hours used for financial aid decisions.

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<td>ABRD 1431</td>
<td>Basic Refinishing</td>
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<td>ABRD 1519</td>
<td>Basic Metal Repair</td>
<td>5</td>
</tr>
<tr>
<td>ACNT 1303</td>
<td>Introduction to Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>AUMT 1407</td>
<td>Automotive Electrical Systems</td>
<td>4</td>
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<tr>
<td>CDEC 1319</td>
<td>Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td>CDEC 1413</td>
<td>Curriculum Resources for Early Childhood Programs</td>
<td>4</td>
</tr>
<tr>
<td>CETT 1302</td>
<td>Electricity Principles</td>
<td>3</td>
</tr>
<tr>
<td>CHEF 1401</td>
<td>Basic Food Preparation</td>
<td>4</td>
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<tr>
<td>CJSA 1308</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CJSA 1322</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CNBT 2342</td>
<td>Construction Management I</td>
<td>3</td>
</tr>
<tr>
<td>CSME 1310</td>
<td>Introduction to Haircutting and Related Theory</td>
<td>3</td>
</tr>
<tr>
<td>CSME 1354</td>
<td>Artistry of Hair Design I</td>
<td>3</td>
</tr>
<tr>
<td>CSME 1501</td>
<td>Orientation to Cosmetology</td>
<td>5</td>
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<tr>
<td>CSME 1553</td>
<td>Chemical Reformation and Related Theory</td>
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<tr>
<td>DEMR 1301</td>
<td>Shop Safety and Procedures</td>
<td>3</td>
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<tr>
<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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<td>ELPT 1311</td>
<td>Basic Electrical Theory</td>
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<tr>
<td>HART 1407</td>
<td>Refrigeration Principles</td>
<td>4</td>
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<tr>
<td>HITT 1305</td>
<td>Medical Terminology I</td>
<td>3</td>
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<tr>
<td>HPRS 1206</td>
<td>Essentials of Medical Terminology</td>
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<tr>
<td>IFWA 1318</td>
<td>Nutrition for the Food Service Professional</td>
<td>3</td>
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<tr>
<td>ITNW 1325</td>
<td>Fundamentals of Networking Technologies</td>
<td>3</td>
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<tr>
<td>ITSC 1319</td>
<td>Internet/Web Page Development</td>
<td>3</td>
</tr>
<tr>
<td>ITSC 1325</td>
<td>Personal Computer Hardware</td>
<td>3</td>
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<tr>
<td>ITSE 1329</td>
<td>Programming Logic and Design</td>
<td>3</td>
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<tr>
<td>MDCA 1309</td>
<td>Anatomy and Physiology for Medical Assistants</td>
<td>3</td>
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<tr>
<td>PHED 1306</td>
<td>First Aid (^1)</td>
<td>3</td>
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<tr>
<td>PHRA 1305</td>
<td>Drug Classification</td>
<td>3</td>
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<tr>
<td>PHRA 1309</td>
<td>Pharmaceutical Mathematics I</td>
<td>3</td>
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<tr>
<td>PHRA 1347</td>
<td>Pharmaceutical Mathematics II</td>
<td>3</td>
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<tr>
<td>PLAB 1223</td>
<td>Phlebotomy</td>
<td>2</td>
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<tr>
<td>RADR 1201</td>
<td>Introduction to Radiography</td>
<td>2</td>
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<tr>
<td>RNSG 1105</td>
<td>Nursing Skills I</td>
<td>1</td>
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<td>RNSG 1413</td>
<td>Foundations for Nursing Practice</td>
<td>4</td>
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<tr>
<td>WLDG 1428</td>
<td>Introduction to Shielded Metal Arc Welding (SMAW)</td>
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<td>WLDG 1437</td>
<td>Introduction to Welding Metallurgy</td>
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\(^1\) Students must provide documentation for Red Cross CPR Certification and First Aid Certification prior to taking the exam.

**International Baccalaureate (IB) Examination Credit**

San Jacinto College awards College credit for certain freshmen students who have completed IB examinations with a score of 4 or above. In compliance with 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 Admissions 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. 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>
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<tbody>
<tr>
<td>Language A1 or A2 or B HL</td>
<td>4</td>
<td>SPAN 1411, SPAN 1412, SPAN 2311, and SPAN 2312</td>
<td>4, 3, 3, 3</td>
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<tr>
<td>Language B SL</td>
<td>4</td>
<td>SPAN 1411 and SPAN 1412</td>
<td>4, 4</td>
</tr>
<tr>
<td>Language AB</td>
<td>4</td>
<td>SPAN 1411</td>
<td>4</td>
</tr>
<tr>
<td>Geography</td>
<td>4</td>
<td>GEOG 1301</td>
<td>3</td>
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<tr>
<td>History (European)</td>
<td>4</td>
<td>HIST 2311</td>
<td>3</td>
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<tr>
<td>Information Technology</td>
<td>4</td>
<td>BCIS 1305</td>
<td>3</td>
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<tr>
<td>Math HL</td>
<td>4</td>
<td>MATH 2412 and MATH 2413</td>
<td>4, 4</td>
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<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>
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<tr>
<td>Math Studies SL</td>
<td>4</td>
<td>MATH 1332</td>
<td>3</td>
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<tr>
<td>Music</td>
<td>4</td>
<td>MUSI 1306</td>
<td>3</td>
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<tr>
<td>Philosophy</td>
<td>4</td>
<td>PHIL 1301</td>
<td>3</td>
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<td>Physics SL</td>
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<td>PHYS 1301 and PHYS 1101</td>
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<td>Physics HL</td>
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<td>PHYS 1302 and PHYS 1102</td>
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<td>Psychology</td>
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<td>PSYC 2301</td>
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<tr>
<td>Social Anthropology</td>
<td>4</td>
<td>ANTH 2346</td>
<td>3</td>
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<tr>
<td>Theater Arts</td>
<td>4</td>
<td>DRAM 1310</td>
<td>3</td>
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<tr>
<td>Visual Arts</td>
<td>4</td>
<td>ARTS 1301</td>
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**Credit by Internal Exams**

Internal challenge exams are developed by the technical programs, approved by College curriculum teams and administered by the campus testing centers or academic departments. A student must petition the
CPL by Licensure or Industry Certification

San Jacinto College has established equivalent course credit for professional certificates and state or national licensure. The College bases course credit 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 or general education courses. Students must earn at least 25% of the credit hours required for the degree through instruction at San Jacinto College. Credit by licensure does not apply to academic courses. A student must request to have the credit posted. The credit will not 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 College curriculum steering committee; and
- Provide an official copy of licensure or certification with the application.

Before receiving credit, the student must pay the Business office a nonrefundable $20 fee per course.

Air Conditioning Technology

<table>
<thead>
<tr>
<th>Course Code</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>
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Automotive Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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</thead>
<tbody>
<tr>
<td>AUMT 1271 or AUMT 1272</td>
<td>Manufacturers Maintenance &amp; Pre-Delivery Automotive Maintenance and Repair</td>
<td>G1 ASE Certification G1 ASE Certification</td>
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<tr>
<td>AUMT 1319</td>
<td>Automotive Engine Repair</td>
<td>Automotive Service Excellence (ASE) A1: Engine Repair</td>
</tr>
<tr>
<td>AUMT 1345</td>
<td>Automotive Climate Control Systems</td>
<td>ASE A7: Heating and Air Conditioning and ASE Refrigerant Recovery and Recycling Certification required</td>
</tr>
<tr>
<td>AUMT 1407</td>
<td>Automotive Electrical Systems</td>
<td>ASE A6: Electrical/Electronic Systems</td>
</tr>
<tr>
<td>AUMT 1410</td>
<td>Automotive Brake Systems</td>
<td>ASE A5: Brakes</td>
</tr>
<tr>
<td>AUMT 1416</td>
<td>Automotive Suspension and Steering Systems</td>
<td>ASE A4: Steering and Suspension</td>
</tr>
<tr>
<td>AUMT 1419</td>
<td>Automotive Engine Repair</td>
<td>ASE A1: Engine Repair</td>
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AUMT 1445 Automotive Climate Control Systems ASE A7: Heating and Air Conditioning and ASE Refrigerant Recovery and Recycling Certification required
AUMT 2413 Automotive Drivetrain and Axles ASE A3: Manual Drive Train and Axles
AUMT 2417 Automotive Engine Performance Analysis I ASE A8: Engine Performance
AUMT 2421 Automotive Electrical Diagnosis and Repair ASE A6: Electrical/Electronic Systems
AUMT 2425 Automotive Automatic Transmission and Transaxle ASE A2: Automatic Transmission/Transaxle
AUMT 2434 Automotive Engine Performance Analysis II ASE A8: Engine Performance

Business Office Technology

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<tr>
<th>Course Code</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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Child Development

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<th>Course Code</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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Computer Information Technology

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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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</thead>
<tbody>
<tr>
<td>ITCC 1314</td>
<td>CCNA 1: Introduction to Networks</td>
<td>Cisco Certified Network Associate (CCNA) Certification (completed in last 18 months)</td>
</tr>
<tr>
<td>ITCC 1440</td>
<td>CCNA 2: Routing and Switching Essentials</td>
<td>Cisco Certified Network Associate (CCNA) Certification (completed in last 18 months)</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Name</td>
<td>Licensure or Industry Certification</td>
</tr>
<tr>
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</tr>
<tr>
<td>ITCC 2412</td>
<td>CCNA 3: Scaling Networks</td>
<td>Cisco Certified Network Associate (CCNA) Certification (completed in last 18 months)</td>
</tr>
<tr>
<td>ITCC 2413</td>
<td>CCNA 4: Connecting Networks</td>
<td>Cisco Certified Network Associate (CCNA) Certification (completed in last 18 months)</td>
</tr>
<tr>
<td>ITNW 1325</td>
<td>Fundamentals of Networking</td>
<td>Net+ Certification (completed in last 3 years)</td>
</tr>
<tr>
<td>ITNW 1354</td>
<td>Implementing and Supporting Servers</td>
<td>Server + Certification</td>
</tr>
<tr>
<td>ITSC 1307</td>
<td>UNIX Operating System I</td>
<td>Linux + Certification</td>
</tr>
<tr>
<td>ITSC 1325</td>
<td>Personal Computer Software</td>
<td>A+ Certification</td>
</tr>
<tr>
<td>ITSY 1342</td>
<td>Information Technology Security</td>
<td>Security + Certification</td>
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### Construction Management Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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</thead>
<tbody>
<tr>
<td>CNBT 1210</td>
<td>Basic Construction Safety</td>
<td>OSHA Safety Certification (30 or more hours General Industry Training course)</td>
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### Cosmetology

<table>
<thead>
<tr>
<th>Course Code</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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### Criminal Justice

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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<tbody>
<tr>
<td>CJLE 1333</td>
<td>Traffic and Law Investigation</td>
<td>Texas Commission on Law Enforcement (TCLEOSE) licensing exam after 1983</td>
</tr>
<tr>
<td>CJSA 1348</td>
<td>Ethics in Criminal Justice</td>
<td>Texas Commission on Law Enforcement (TCLEOSE) licensing exam after 1983</td>
</tr>
<tr>
<td>CJSA 1351</td>
<td>Use of Force</td>
<td>Texas Commission on Law Enforcement (TCLEOSE) licensing exam after 1983</td>
</tr>
</tbody>
</table>

### Culinary Arts

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</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>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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</thead>
<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 Code</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>
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<tr>
<td>EMSP 1501</td>
<td>Emergency Medical Technician - Basic</td>
<td>TDH EMT- Basic Certification or higher</td>
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</table>

### Firefighter Certification

<table>
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<tr>
<th>Course Code</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 1307</td>
<td>Firefighter Certification II</td>
<td>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 1423</td>
<td>Firefighter Certification V</td>
<td>TCFP Firefighter Basic Certification or higher</td>
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<td>FIRS 1329</td>
<td>Firefighter Certification VI</td>
<td>TCFP Firefighter Basic Certification or higher</td>
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<tr>
<td>FIRS 1333</td>
<td>Firefighter Certification VII</td>
<td>TCFP Firefighter Basic Certification or higher</td>
</tr>
<tr>
<td>FIRS 1433</td>
<td>Firefighter Certification VII</td>
<td>TCFP Firefighter Basic Certification or higher</td>
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<tr>
<td>FIRT 1303</td>
<td>Fire Arson Investigation I</td>
<td>TCFP Fire or Arson Investigator Certification</td>
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<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>
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<tr>
<td>FIRT 1343</td>
<td>Fire Officer II</td>
<td>TCFP Fire Officer II Certification</td>
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<tr>
<td>FIRT 1345</td>
<td>Hazardous Materials II</td>
<td>TCFP HAZMAT Technicians</td>
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### Credit by Examination

<table>
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<th>Course Name</th>
<th>Licensure or Industry Certification</th>
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</thead>
<tbody>
<tr>
<td>FIRT 1408</td>
<td>Inspector I</td>
<td>TCFP Fire Inspector Certification</td>
</tr>
<tr>
<td>FIRT 1440</td>
<td>Inspector II</td>
<td>TCFP Fire Inspector Certification</td>
</tr>
<tr>
<td>FIRT 2112</td>
<td>Hazardous Materials Incident Commander</td>
<td>TCFP HAZMAT Incident Commander</td>
</tr>
<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>
</tr>
</tbody>
</table>

Global Logistics and Supply Chain Management

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBUS 1301</td>
<td>Principles of Exports</td>
<td>United States Customs Broker License</td>
</tr>
<tr>
<td>IBUS 2345</td>
<td>Import Customs Regulations</td>
<td>United States Customs Broker License</td>
</tr>
<tr>
<td>IBUS 2332</td>
<td>Global Business Simulation</td>
<td>United States Customs Broker License</td>
</tr>
</tbody>
</table>

Maritime Transportation

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAUT 1171</td>
<td>Medical Care Provider</td>
<td>U.S. Coast Guard Medical Care Provider Certificate</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 1273</td>
<td>Engineering Familiarization</td>
<td>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 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>
</tbody>
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<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
</tr>
</thead>
<tbody>
<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 2171</td>
<td>Upgrade to Apprentice Mate</td>
<td>U.S. Coast Guard Apprentice Mate, or higher towing license</td>
</tr>
<tr>
<td>NAUT 2272</td>
<td>Radar Observer Unlimited</td>
<td>U.S. Coast Guard Radar Unlimited</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>
</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 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 2471</td>
<td>Terrestrial &amp; Coastal Navigation</td>
<td>U.S. Coast Guard 100 Ton or above Master Certification</td>
</tr>
<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>
</tbody>
</table>

Medical Assisting

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

Medical Laboratory Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLAB 1223</td>
<td>Phlebotomy</td>
<td>American Society of Clinical Pathologists Certification</td>
</tr>
</tbody>
</table>

Non-Destructive Testing Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Licensure or Industry Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDTE 1301</td>
<td>Film Interpretations of Weldments</td>
<td>ASNT Level II: Radiographic Film Interpretation; or AWS Certified Radiographic Interpreter; or NAS 410/MIL-STD-410E RT Film Level 2 Certification</td>
</tr>
</tbody>
</table>
NDTE 1405  |  Introduction to Ultrasonic Testing Level 1 & 2  |  ASNT UT Level II Certification; or NAS 410/MIL-STD-410E UT Level 2 Certification. (or higher); or API QUTE, or API QUPA, or API QUSE Certification.
NDTE 1410  |  Liquid Penetrant, Magnetic Particle & Visual Testing  |  Combination of both a MT & PT Certification from any combination of the following: ASNT Level II Certification; or NAS 410/MIL-STD-410E Level 2 Certification. (or higher)
NDTE 1440  |  Eddy Current Testing  |  ASNT ET Level II Certification; (or higher)
NDTE 1454  |  Intermediate Ultrasonics: Flaw Detection and Sizing  |  ASNT UT Level III Certification; or API QUTE, or API QUPA, or API QUSE Certification.
NDTE 2339  |  Power Piping Inspection  |  API 570 Piping Inspector Certification; or, ASME Authorized Inspector Certification (AI).
NDTE 2401  |  Advanced Ultrasonics  |  API QUPA Certification.
NDTE 2411  |  Prep for Certified Weld Inspector Exam  |  AWS CWI, or CAWI, or SCWI Certification; or, API 577 Welding Inspection & Metallurgy certification.
NDTE 2470  |  Pressure Vessel Inspection  |  API 510 Pressure Vessel Inspector Certification; or, ASME AI Certification.
QCTC 1341  |  Statistical Process Control  |  Any of the following ASQ Certifications: CQE, CPQA, CMQ/OE, 6Sigma, any Belt; or an ASQ/AME/LEAN Certification.
QCTC 1343  |  Quality Assurance  |  Any of the following ASQ Certifications: CQA, CQIA, CQI,QT, CQE, CPQA, CMQ/OE, HACPR 6Sigma, any Belt; or an ASQ/AME/LEAN Certification.
QCTC 1446  |  Testing and Inspection Systems  |  Any ASNT Level II Cert., or any API Cert., or any AWS Cert., or any ASQ Cert.
QCTC 2331  |  Standards and Codes  |  Any ASNT Level III Cert., or any API Cert., or any AWS Cert.

WLDG 1437  |  Introduction to Welding Metallurgy  |  API 577 Welding Inspection & Metallurgy Certification.
WLDG 2455  |  Advanced Metallurgy  |  API 577 Welding Inspection & Metallurgy Certification.

**Pharmacy Technician**

<table>
<thead>
<tr>
<th>Course Code</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>
</tr>
</tbody>
</table>

**Physical Education**

<table>
<thead>
<tr>
<th>Course Code</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>
</tr>
</tbody>
</table>

**Real Estate**

<table>
<thead>
<tr>
<th>Course Code</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 1303</td>
<td>Real Estate Appraisal</td>
<td>Active Appraisal License</td>
</tr>
<tr>
<td>RELE 1315</td>
<td>Property Management</td>
<td>Current Certified Property Management Designation (CPM)</td>
</tr>
<tr>
<td>RELE 1319</td>
<td>Real Estate Finance</td>
<td>Active Mortgage Loan Originator License</td>
</tr>
<tr>
<td>RELE 1321</td>
<td>Real Estate Marketing</td>
<td>Current Graduate REALTORS ® Institute (GRI) Designation</td>
</tr>
<tr>
<td>RELE 2301</td>
<td>Law of Agency</td>
<td>Active Texas Real Estate Salesperson License</td>
</tr>
</tbody>
</table>

**Surgical Technology**

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

**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. Students may go to www.sanjac.edu/soslogin, go to Student Records and Request Official Transcript.
2. To request a transcript in person, students may bring a photo ID to the Educational Planning, Counseling, & Completion office. The College typically fills these requests immediately; however, students may experience a longer processing time during peak registration periods. If a student desires someone else to pick up transcripts, 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 Records Management office for an official transcript. The request for an official transcript should include the student’s name, name while enrolled at San Jacinto College, student’s generated ID number, date of birth, dates of attendance, address to which the transcript is to be mailed, a signature and a copy of his/her picture ID. Except during registration periods, processing and mailing of transcripts should be completed within two work days of receipt of the request. The College does not charge for transcripts.

The College will not release official transcripts if the student has 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. Students should request those 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 US 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.

Transfer Credit

Common Course 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.

For example, ENGL 1301 Composition I at San Jacinto College, has the common course number ENGL 1301 Composition I. 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 Composition I 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 Admissions Office on any campus.

Academic Course Guide Manual (ACGM)
Lower-division courses included in the Academic Course Guide Manual (ACGM) 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 work 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>Higher Learning Commission</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>
</tbody>
</table>
Southern Association of Colleges and Schools  Commission on Colleges
Western Association of Schools and Colleges  Accreditation Commission for Senior Colleges and Universities
Western Association of Schools and Colleges  Accrediting Commission for Community and Junior Colleges
Students who have completed course work from non-accredited institutions may be eligible to receive credit by examination.

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

An approved firm or organization that specializes 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 Admissions Office and the international student counselor offer help in locating translation and evaluation organizations recognized by San Jacinto College. For a complete list of approved companies, students may refer to the Approved Evaluation Services.

Transfer of Credit from San Jacinto College
The receiving institution decides whether to accept San Jacinto College academic ACGM 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 that 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.

Universities are not required to accept technical Workforce Education Course Manual (WECM) courses in transfers. However, these universities that offer BAAS degrees may accept technical courses. The College advises students to contact the receiving institution.

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. If 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.

Articulated Credit from High School
High school articulation is an agreement between San Jacinto Community College District and an independent school district (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, the College develops agreements when Advanced Technical Credit (ATC)-qualified high school instructors and course curriculum matches that of San Jacinto College 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. The College does not award credit without the “A.”

Students must meet specific eligibility criteria in addition to general credit for prior learning (CPL) criteria aforementioned:

• High school course marked with an “A” in the course type column on the high school transcript;
• Students must enroll at San Jacinto College 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; and
• Student must earn at least three semester credit hours of College credit courses prior to the College awarding the articulated credit.

Student Rights and Responsibilities

San Jacinto College holds that students, upon enrollment, neither lose the right nor escape the duties of citizenship. The student-citizen must exercise liberty with responsibility. The enumeration of the following rights and responsibilities shall in no way be interpreted as being all-inclusive or denying the existence of other rights and responsibilities which a student holds as a student or citizen.

Student Rights

Right to Review One’s Educational Records and to Seek Amendment to One’s Records

The Family Educational Rights and Privacy Act (FERPA) provides students with certain rights with respect to their personal educational records. These general rights include the right of access to one’s educational records, the right to request corrections to one’s records, and the right to prevent disclosure of the student’s records except when authorized by FERPA. The college’s specific policies and procedures regarding FERPA can be found on the college website and in this Handbook.

Academic Evaluation Rights

Students have the right to be apprised of the methodology by which they will be evaluated in their course work. Also, students shall have appeal rights to challenge final grades. Please refer to Complaint Procedure 100: Grade Appeal Process found in the Student Handbook or Catalog.

Intellectual Property Rights

Students shall retain their intellectual property rights on projects produced as a result of their individual initiative and that involved only 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.

Right to Appeal Financial Aid Suspension

Students may submit Financial Aid appeals due to extenuating circumstances that have affected the student’s academic performance. Extenuating circumstances are situations such as serious injury or illness, a death in the immediate family, or undue hardship. Detailed information about the financial aid appeal process, requirements, and guidelines can be found on the College website or obtained from the Financial Aid Office.

Right to Freedom of Association

Students bring to the College a variety of interests. Students have the freedom to organize and join associations to promote their common interests in accordance with the policies and procedures of the College. Please visit the Student Engagement and Activities Office on your campus for more information.

Right to Freedom of Inquiry and Expression

Students and student organizations are free to examine and discuss matters of interest to them and to express opinions publicly and privately by orderly means which do not disrupt the regular and normal operations of the institution, and which comply with the regulations that relate to student conduct. At the same time, in their public expressions or demonstrations, students or student organizations do not represent the institution and speak only for themselves. Please visit the Student Engagement and Activities Office on your campus for more information.

Right to Freedom from Illegal Discrimination

It is the policy of the San Jacinto Community College District not to discriminate on the basis of 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. The following officials have been designated to respond to inquiries regarding the College’s non-discrimination policies:

Vice Chancellor, Human Resources, Organizational and Talent Effectiveness
Sandra Ramirez (employees) - Co-Lead Title IX Coordinator and Equal Opportunity Compliance Officer
4624 Fairmont Parkway
Pasadena, Texas 77504
sandra.ramirez@sjcd.edu (stephen.trncak@sjcd.edu)
281-998-6348

Associate Vice Chancellor, Student Services
Joanna Zimmermann (students) - Co-Lead Title IX Coordinator
8060 Spencer Highway
Pasadena, Texas 77504
joanna.zimmermann@sjcd.edu
281-476-1863

Right to Due Process

The College has an enduring commitment to provide students with a balanced and fair student discipline system. The College will provide students with the due process protections to which they are entitled under the U.S. Constitution Fourteenth Amendment. The amount of due process required will depend upon the seriousness of the alleged violation and the proposed sanction. At a minimum, a student charged with alleged violations of the Code of Student Conduct has the right to:
• have their case processed without unreasonable delay
• receive prompt written notice of alleged violations per the Code of Student Conduct and an explanation of the evidence against the student
• receive a meaningful opportunity to be heard in one’s defense

For more detailed information about the College’s investigation procedures, hearing procedures, and appeal procedures, please refer to the Code of Student Conduct found in the Student Handbook.

Right to Freedom from Sexual Assault, Dating Violence, Domestic Violence and Stalking

In accordance with the Campus SaVE Act in the Violence Against Women Act amendments to the Clery Act, San Jacinto College provides on-going awareness and prevention training, procedures and resources to prevent the occurrence of sexual assault, dating violence, domestic violence and stalking. The College also provides an equitable complaint process that provides for prompt investigation of complaints and the imposition of sanctions against students who are found in violation of this code (see Complaint Procedure 400). For more information about student-related training, contact the Compliance & Judicial Affairs Office.

Right to Equity in Athletics

The Equity in Athletics Disclosure Act (EADA) is intended to make prospective students aware of a school’s commitment to providing equitable opportunities for its male and female students. Each year, San Jacinto College produces an EADA report available to current and prospective students and to the public. If you would like to review the full report or to request a copy of San Jacinto College’s EADA report, please contact the Vice Chancellor of Strategic Initiatives office at 281-459-7140.

Right to Involvement in Decision Making

San Jacinto College provides an opportunity for student involvement in the decision making process through the respective forms of student government on the three campuses. As constituents of the educational community, students may express their views on issues of institutional policy and on matters of general interest to the student body.

In addition to membership in student associations and organizations, students shall be given the opportunity to serve on campus and College committees as deemed appropriate by the College. For more information, please visit the Student Engagement & Activities office on your campus.

Amnesty for Certain Drug or Alcohol Possession and Consumption Violations

Students are strongly encouraged to report incidents of, or share information about, sexual harassment and sexual misconduct as soon as possible. This is true even if the alleged victim of the misconduct or a witness to the alleged misconduct was under the drinking age or under the influence of drugs or alcohol on the occasion in question. The Compliance & Judicial Affairs office will not pursue disciplinary sanctions against the alleged victim or witness for his or her improper use of alcohol or drugs if the student is making a good faith report of sexual misconduct. For more information, please contact the Compliance & Judicial Affairs office.

Student Responsibilities

In voluntarily enrolling at the College, students have the responsibility to comply with all state and federal laws and college regulations and policies governing student conduct and academic affairs. Students assume responsibility for their behavior and acknowledge and share the following responsibilities:

• Students must recognize that the Board of Trustees is the policy making authority for the operation of the San Jacinto Community College District. The Board delegates to the College administration the authority to implement Board policy through procedures, regulations, guidelines and handbooks.
• Students must understand that while education is a shared activity, the ultimate responsibility for learning rests with the student.
• Students are responsible, collectively and individually, for allowing other students to continue their pursuit of education. Students must refrain from interfering with the rights of other students in their educational pursuits or with employees in the exercise of their duties.
• The right to disagree is well established. However, students must make sure that disagreement is factual and is presented with respect for those with whom they are disagreeing, including faculty, staff, administration, other students and campus visitors. When approaching the administration about any matter, students must go through established channels of communication and authority.
• Students have a responsibility to comply with copyright law and to educate themselves regarding copyright infringement, peer-to-peer file sharing and penalties for violations. For information and resources, please visit http://www.sanjac.edu/policy-vi-k-policy-regarding-appropriate-use-copyrighted-materials.
• Students must comply with the policies, rules, regulations and generally accepted practices of the College currently in effect or as they may be amended. All policies, rules, regulations, and practices are subject to amendment at any time during the student’s enrollment.
• Students also have the responsibility to comply with all state and federal laws and regulations governing their participation in higher education. Such regulations and laws as may exist or that may be subsequently enacted and adopted shall have precedence over the provisions of this document of student rights.

Code of Academic Integrity and Honesty

Integrity is one of the core values at San Jacinto College. As such, students are expected to exhibit honesty, integrity, high standards, and freedom from lies and fraud in their academic work. Personal integrity is important in all aspects of life, and students must conduct themselves in an ethical manner both in and out of the classroom. Incidents of academic dishonesty will not be tolerated, and students guilty of such conduct are subject to disciplinary consequences.

Cheating, Plagiarism, Collusion and Fabrication

Code of Academic Integrity and Honesty

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Cheating, Plagiarism, Collusion and Fabrication Procedure

The following institutional guidelines concerning cheating, plagiarism, collusion and fabrication 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, therefore, honesty fully practiced is emphasized by rules against cheating, plagiarism, collusion, and fabrication. Any act of cheating, plagiarism, collusion, or fabrication in any degree subjects a student to the disciplinary procedures listed below.

Cheating

Students are expected to be completely honest in all phases of their work and must adhere to the guidelines provided by their faculty members for completing academic 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,
- claiming as their own work any portion of academic work that was completed by another student,
- using materials not approved by their faculty member when completing an assignment or exam,
- presenting the same work for more than one course without obtaining approval from the course faculty member,
- 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).

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.

Plagiarism includes, but is not limited to, the following:

- using the ideas and or words of another person, without giving that person appropriate credit,
- representing another’s artistic or scholarly works (i.e., musical compositions, computer programs, photographs, paintings, drawings, sculptures, etc.) as your own,
- submitting a paper purchased in whole or in part from another person or other sources, including the internet,
- copying computer programs or data files belonging to someone else, and
- using undocumented Web sources.

Collusion

Learning is an active process for all students; completion and submission of original work is essential to the learning process. Collusion is unauthorized collaboration in preparing any work offered for credit. Therefore, students should take reasonable precautions to protect their work from being compromised.

Collusion includes, but is not limited to, the following:

- 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,
- impersonating another student for the purpose of taking a course, any academic work, or exam,
- providing unauthorized access to course materials, and
- agreeing with one or more persons to commit any act of academic dishonesty.

Fabrication

Fabrication is all experimental data, observations, interviews, statistical surveys, and other information collected and reported as academic work not authenticated.

Fabrication includes, but is not limited to, the following:

- falsifying the results obtained from research or laboratory experiments,
- presenting results of research or laboratory experiments without the research or laboratory experiments being performed, and
- changing answers or grades after an academic work has been returned to the student.

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 investigating these violations which includes, but is not limited to, collection of any evidence of cheating at the time it occurs and discussions with the student and witnesses. 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. These violations of academic dishonesty are also communicated with respective department chairs/program directors and deans.

Penalties

If, in the judgment of the faculty member, cheating, plagiarism, collusion, or fabrication has occurred, he or she may assess one of the following penalties:
• failure of the assignment by the faculty member
• require student to redo test or assignment
• reduced grade on the assignment by the faculty member
• failure of the course; the student may appeal the grade through the Grade Appeal process (see Complaint Procedure 100 found in the Catalog or Student Handbook)
• recommendation for suspension from the College or dismissal from a program, which is submitted to the Provost
• other

The faculty member will notify the student of his or her decision concerning the student’s grade. Other disciplinary action may be recommended by the College if code of student conduct violations have occurred. If a student will not meet with the faculty member or if notification cannot take place because of a student’s unavailability, failure to respond, or incorrect contact information, the process proceeds as specified. Should the faculty member recommend suspension or dismissal of the student, the Provost has the responsibility and authority to determine whether the student will be suspended or dismissed.

The faculty member will prepare an online Academic Dishonesty Incident Report for the Provost, the Dean, Department Chair and/or Program Director. The report indicates the nature of the incident, student identifying information, and the proposed penalty. The Department Chair will generate a decision letter to the student that will include the proposed penalty and the student’s appeal rights.

Appeals
A student may appeal a proposed penalty made by a faculty member. The student shall initiate the appeal process within five (5) days following the communication of the proposed penalty. The procedures for appealing a proposed penalty are:

* Student meeting with Academic Dishonesty Appeals Committee: Within five (5) working days after receiving written notification of the proposed penalty via email (or first-class mail when necessary), a student may request a hearing before an Academic Dishonesty Appeals Committee. The student must submit a written request directly to the respective Campus Provost either via email or with a mailed letter. A first-class letter will be deemed to have been received on the third day after the date of mailing, excluding any intervening Sunday or federal holiday. An email will be deemed to have been received on the second day after the sending of the message.

* The committee will consist of one full-time faculty member to be named by the student, one full-time faculty member to be named by the faculty member, and one full-time faculty member to be named by the Provost. The Provost will request that the student and faculty member 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 faculty member 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 appeal and may also be accompanied by an advisor. The student’s advisor may attend the appeal meeting and confer with the student but may not cross-examine other participants. The student may have a maximum of two (2) persons (faculty member and advisor) in the room at the appeal committee meeting. Furthermore, an advisor may not be a witness in the matter.

The Academic Dishonesty Appeals Committee may request information from the faculty member, student, and/or other persons familiar with the matter. The College retains the right to have legal counsel present at the appeal meeting but the attorney may not cross-examine other participants.

* In the event that a student is a qualified person with a disability under federal law and is unable to represent himself or herself at the appeal meeting because of his or her disability, the College, as a reasonable accommodation to the student, will permit the student to be represented by an advisor at the meeting. If the student is represented by legal counsel, then the College also may be represented by legal counsel.

* Within five (5) working days after the appeal meeting, the Provost will notify the student and the faculty member in writing of the committee’s findings regarding the approval or denial of the appeal. The decision of the Academic Dishonesty Appeals Committee is final.

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.

Family Education Rights and Privacy Act (FERPA)
San Jacinto College policy VI.6000B, Confidentiality of Student Records outline the regulations that pertain to the confidentiality of education records of San Jacinto College students.

The Family Educational Rights and Privacy Act of 1974 (FERPA) governs the privacy of student educational records. The Act provides eligible students with the right to inspect and review education records, the right to seek to amend those records, and the right to limit disclosure of information from the records. This policy outlines the regulations that pertain to records of San Jacinto College students. Records of present or former students of the College are confidential and are not public information. Therefore, the following regulations regarding student records shall apply.
Educational records are all records that contain information directly related to a student and are maintained by an educational agency or institution, or by a party acting on its behalf. As used in this policy, “records” includes paper files, electronic and digital files, audio files, and video and photographic files.

**Type of Student Records Maintained**
- Academic progress
- Permanent academic data
- Attendance records
- Standardized test results
- Medical records, including meningitis test results and drug test results
- Student Discipline records
- Book and library records
- Financial aid and other financial records
- Mental health records and counseling information
- Other records related to a student’s day-to-day status
- Any other information in a digital file assigned to a student

Each student record shall be identifiable as to the source. Notes and observations recorded by an individual teacher or other employee and kept for personal use are not student records except under the following conditions:

- The information is shared with someone other than a substitute for the employee.
- The information is used in preparation of student records.

**Definition of Terms**

The following terms are interpreted as indicated:

- **Student Records** - any personally identifiable information concerning a student maintained for use by the College. This includes the student’s name, address, personal identifiers such as social security numbers, and other personal characteristics or information that make the student’s identity easily traceable.
- **Eligible Student** - a student who attends or has attended the school from which records are requested
- **Custodian** - the Deputy Chancellor and College President of the College
- **Custodian’s Agent** – Provosts, Vice Chancellors, Associate Vice Chancellors, Vice Presidents, Deans and those persons appointed by any of these to safeguard or to use student records
- **Directory Information** – is a list of items regarding a student of the College that may be made available to the public without the student's prior consent.
- **Legitimate Educational Interest** - an interest of school officials who require access to student records in order to perform their legitimate educational and business duties, when such records are needed in furtherance of the educational or business purposes of the student or College.
- **School Official** - 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. For purposes of this policy, a “school official” is:
  - a person employed by the College in an administrative, supervisory, academic or research, or support staff position
  - 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 diagnostician, IT computer services professional, or insurer)
  - a person serving on the Board of Trustees; a student serving on an official committee, such as a disciplinary or grievance committee
  - a student assisting another school official in performing his or her tasks
  - 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
  - companies or organizations with whom the College has contracted to provide plagiarism-detection services. Such companies may receive a student’s work product for purpose of comparing the student’s work with a reference database

**Directory Information**

- Name
- Address
- Age (but not birthdate)
- Degrees earned and dates
- Major program of study
- Classification
- Terms of attendance
- Previous educational institutions attended
- Eligibility for and honors and awards received with dates that the honor or award was received
- Eligibility for and participation in officially recognized activities and sports
- Weight and height of members of athletic teams and sports statistics
- Enrollment status (full-time or part-time)

**Restricting access to directory information:** A student may ask that directory information be withheld from the public by accessing their student on-line account (SOS) in the student records tab and indicating directory information remain confidential. The student may make this request at any time.

**Review of Records by the Student**

- A student’s request for examination of his or her FERPA records may be made in person or in writing by the eligible student to the San Jacinto College Marketing Office. The Marketing Office may require proof of identity. The request shall identify the specific record(s) to be examined. Requests shall be honored as soon as practical, but the request must be honored within 45 days. Refer to the college website for information regarding these requests.
- An inaccurate or inappropriate entry into the records may not be corrected or removed when an eligible student has made a request to review the record and the request has not yet been honored.
- A log of requests for a student’s records shall be maintained by the San Jacinto College Marketing Office in the student’s file indicating all requests, date of requests, by who made, and whether or not each request was honored.
Release of Records

- Student records may not be released to a third party unless the student consents in writing or unless a legally recognized exception applies (see the federal regulations at 34 C.F.R. § 99.31).

Accessibility of Records without Consent

Student records shall be accessible without the student's consent to the following:

- Other school officials, including faculty members, within San Jacinto College whom the College has determined to have legitimate educational interests. This includes contractors, consultants, volunteers, or other parties to whom the school has outsourced institutional services or functions, provided that the conditions listed in § 99.31(a)(1)(i)(B)(1) - (a)(1)(i)(B)(3) are met. (§ 99.31(a)(1))
- Officials of another school or college where the student seeks or intends to enroll, or where the student is already enrolled if the disclosure is for purposes related to the student’s enrollment or transfer, subject to the requirements of § 99.34. (§ 99.31(a)(2)). The student may request that the College forward a copy of the record to other institutions.
- In connection with financial aid for which the student has applied or which the student has received, if the information is necessary to determine eligibility for the aid, determine the amount of the aid, or enforce the terms and conditions of the aid.
- In connection with a request for “directory information” as designated by the school under § 99.37. (§ 99.31(a)(11))
- State or local officials to whom educational data must be reported.
- Legitimate organizations (ACT, CEEB, ETS) developing, validating, or administering predictive tests or student aid programs. Such data are not to be released in any identifiable form and will be destroyed by the organization after the research has been completed.
- Accrediting agencies
- Parents of a dependent student as defined in Section 152 of the Internal Revenue Code of 1954.
- Appropriate officials in connection with a health or safety emergency.
- In compliance with judicial order or pursuant to any lawfully issued subpoena upon written notice to the affected student.
- Representative of the Comptroller General of the United States, Department of Education, administrative heads of educational agencies, or state education authorities.
- Legitimate agencies providing financial assistance to students, to organizations conducting studies for the purpose of developing, validating, or administering tests, or for the purpose of improving instruction, provided that the information is not to be revealed to a third party.
- A victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, subject to the requirements of § 99.39. The disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding.
- Parents of a student regarding the student’s violation of any Federal, State, or local law, or of any rule or policy of the school, governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary violation and the student is under the age of 21.

Policy Availability and Notice

- A copy of this policy will be made available upon request to eligible students.
- At least once annually, an effort shall be made to inform all eligible students of their rights under the provisions of this policy. Such effort shall be made through the College website, College catalog, and student handbook.

Student Records Management

San Jacinto College policy VI.6000B, Confidentiality of Student Records outline the regulations that pertain to the confidentiality of education records of San Jacinto College students.

The College shall develop and maintain a comprehensive system of student records related to various facets of the College's operation and shall ensure through reasonable procedures that records are accessed by authorized persons only, as allowed by this policy. These data and records shall be stored in a safe and secure manner and shall be conveniently retrievable for utilization by authorized school officials.

The Deputy Chancellor and College President is custodian of all records for currently enrolled students and for all official academic records; however, he or she may appoint one or more designees, as necessary, to perform record management duties.

Educational records are all records that contain information directly related to a student and are maintained by an educational agency or institution, or by a party acting on its behalf. As used in this policy, “records” includes paper files, electronic and digital files, audio files, and video and photographic files.

Type of Records Maintained

- Academic progress
- Permanent academic data
- Attendance records
- Standardized test results
- Medical records, including meningitis test results
- Student Discipline records
- Book and library records
- Financial aid and other financial records
- Mental health records and counseling information
- Other records related to a student's day-to-day status
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Each student record shall be identifiable as to the source. Notes and observations recorded by an individual teacher or other employee and kept for personal use are not official student records except under the following conditions:

- The information is shared with someone other than a substitute for the employee.
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Definition of Terms

The following terms are interpreted as indicated:

- Student Records - any personally identifiable information concerning a student maintained for use by the College. This includes the student’s name, address, personal identifiers such as social security...
numbers, and other personal characteristics or information that make the student's identity easily traceable.

- Eligible Student - a student who attends or has attended the College
- Custodian - the Deputy Chancellor and the College President of the College
- Custodian's Agent - Provosts, Vice Chancellors, Associate Vice Chancellors, Vice Presidents, Deans and those persons appointed by any of these to safeguard or to use student records

- School Official - 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. For purposes of this policy, a "school official" is:

  • a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including Campus Police 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 diagnostician, IT computer services professional, or insurer)
  • a person serving on the Board of Trustees; a student serving on an official committee, such as a disciplinary or grievance committee
  • a student assisting another school official in performing his or her tasks
  • 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
  • companies or organizations with whom the College has contracted to provide plagiarism-detection services. Such companies may receive a student's work product for purpose of comparing the student's work with a reference database

Accuracy of Information

If an eligible student believes that information in his or her educational records is inaccurate or misleading or otherwise violates the student's privacy, a request for correction may be given in writing to the custodian of the record or other school official who is responsible for the record.

- If the correction is not made within a reasonable length of time (a maximum of 30 school days), the student may request a hearing. The Dean of Student Development shall serve as the hearing officer; however, if the Dean of Student Development is the custodian of the record in question or otherwise has a direct interest in the outcome of the hearing, then a designee shall serve as the hearing officer.

- A hearing must be held within a reasonable time (a maximum of 30 school days, barring unforeseeable circumstances) after the request has been made. The hearing officer shall provide the eligible student and the custodian of the record reasonable notice of the date, time and place of the hearing. In advance of the hearing, the custodian of the record shall prepare a packet containing copies of the contested records and any other relevant records or documents, including any applicable policies and procedures. The custodian of the record shall prepare a report summarizing the reasons why he or she believes that the challenged record is not inaccurate or misleading or otherwise a violation of the student's privacy. The custodian shall provide the packet and report to the student and hearing officer at least one school day prior to the hearing. The student shall have a full and fair opportunity to present his or her own evidence related to the accuracy of the record. The student, at his or her own expense, may be represented by legal counsel or an advisor. The student's legal counsel or advisor may attend the hearing and confer with the student but may not participate in the hearing.

- The hearing officer shall prepare a written ruling within a reasonable time after the hearing (a maximum of 21 school days). The ruling must be based solely on the evidence presented at the hearing. The ruling must include a summary of the evidence and the reasons for the ruling.

- If the hearing officer concludes that no correction to the record is warranted, the eligible student is to be notified and informed of the right to place in the records a statement either commenting on or setting forth a reason for disagreeing with the school's decision.

- An eligible student who disagrees with the outcome of the hearing may file a complaint with the U.S. Department of Education. The name and address of the office that administers FERPA is the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202.

- A hearing pertaining to student records may be scheduled to challenge the accuracy of recording but not the assignment or merits of a grade.

Hazing

Texas criminal law prohibits hazing or hazing-type activities. Hazing is defined as any intentional, knowing or reckless act occurring on or off the campus of an educational institution by one person alone or acting with others directed against a student that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in or maintaining membership in any organization whose members are or include students at an educational institution.

A person can commit a hazing offense not only by engaging in a hazing activity but also by soliciting, directing, encouraging, aiding or attempting to aid another in hazing; by intentionally, knowingly or recklessly allowing hazing to occur; or by failing to report, in writing to the Compliance & Judicial Affairs Office or another appropriate official of the College, first-hand knowledge that a hazing incident is planned or has occurred. The fact that a person consented to or acquiesced in a hazing activity is not a defense to prosecution for hazing under this law. Under Texas law, hazing can subject a person to criminal penalties. For more information, please contact the Compliance & Judicial Affairs office by calling 281-478-2756 or emailing compliance@sjcd.edu.

Campus Sexual Misconduct Policy

San Jacinto College prohibits all employees and students from engaging in sexual harassment, sexual violence, and other behaviors of a sexual nature that are hostile, unwelcome, or intimidating. This prohibition encompasses conduct occurring on-campus or in connection with a College activity or program. Prohibited conduct that occurs off-campus is also encompassed by these rules if the conduct creates a sexually hostile environment on campus or in a college activity or program or adversely affects another student's educational opportunities at the College.

Students who believe that they have been subjected to sexual misconduct (sexual assault, sexual harassment, dating violence, domestic violence, intimate partner violence or stalking) are encouraged to report their complaint to the San Jacinto College Campus Police Department (281-476-9128) as soon as possible after the incident occurs. Reports of sexual misconduct involving another student also may be
directed to the Compliance & Judicial Affairs Office by submitting an Online Incident Report at www.sanjac.edu/incident-report or by calling 281-478-2756. Reports of sexual misconduct involving an employee should be reported to the Human Resources Department by calling 281-991-2648.

Existing disciplinary and complaint procedures, found in the Student Handbook, will serve as the framework for resolving allegations of sexual misconduct against students. Students found guilty of sexual misconduct will be subject to campus disciplinary sanctions. If an investigation substantiates that an employee engaged in sexual misconduct, the employee is subject to disciplinary action, up to and including termination, as provided in Board policy. In addition, any employee or student may face criminal prosecution for violations of applicable state and federal laws.

During an investigation or any disciplinary proceeding, the rights of both the respondent and the reporting party shall be respected, and the confidentiality of proceedings will be maintained to the extent permitted by law. The existence of the College’s policies and procedures is not intended to diminish or alter the rights that the respondent and reporting party have under civil law or the criminal law.

All sexual assault policies and complaint procedures can be found in the Code of Student Conduct and the Complaint Procedures sections of the Student Handbook.

In accordance with Texas House Bill No. 699 and the Campus SaVE Act/Clery Act, San Jacinto College provides an orientation/training on the College’s Campus Sexual Misconduct Policy for incoming freshman during their first term of enrollment.

Definitions of Prohibited Behavior
(Detailed definitions of each prohibited behavior are provided in Section 3.6 of the Student Handbook.)

Sexual Assault: Intentionally or knowingly causing physical sexual contact or sexual penetration of another person without that person’s consent. “Sexual contact” includes any touching of the anus, breast or any part of the genitals of another person with intent to arouse or gratify the sexual desire of any person. The definition of consent is provided in Section 3.6.1 of this Handbook.

Sexual Harassment: Sexual harassment includes, but is not limited to, unwelcome sexual advances, unwelcome requests for sexual favors, unwelcome verbal comments of a sexual nature and unwelcome physical contact or touching of a sexual nature. Sexual harassment is wrongful regardless of whether the parties are of the same sex or of the opposite sex.

Dating Violence: Violence committed by a person who is or has been in a social relationship of a romantic or intimate nature with the reporting party. The existence of such a relationship shall be determined based on the reporting party’s statement and with consideration of the length of the relationship, the type of relationship and the frequency of interaction between the persons involved in the relationship. Dating violence includes, but is not limited to, sexual or physical abuse or the threat of such abuse.

Domestic Violence: The term “domestic violence” refers to a pattern of abusive behavior between two individuals formerly or currently in an intimate relationship, including through marriage, cohabitation, dating, or within a familial or household arrangement. Abuse may be in the form of physical assault, sexual assault, bodily injury, emotional distress, physical endangerment, or when the imminent threat of any of these instances puts the reporting party in fear of their occurrence. The term encompasses acts committed by a current or former spouse or intimate partner of the reporting party, by a person with whom the reporting party shares a child in common, by a person who is cohabitating with or has cohabitated with the reporting party as a spouse or intimate partner, and by a person similarly situated to a spouse or the reporting party under the domestic or family violence laws of the jurisdiction in which the crime of violence occurred.

Intimate Partner Violence: Physical violence, sexual violence, stalking and psychological aggression (including coercive acts) by a current or former intimate partner.

Stalking: A course of conduct directed at a specific person that would cause a reasonable person to fear for the person’s safety or the safety of others or suffer substantial emotional distress. “Course of conduct” means two more acts, including, but not limited to, acts in which the stalker directly or indirectly, or through third parties, by any action, method, device or means.

San Jacinto College Complaint Procedures for Students

The College maintains several distinct procedures designed to provide efficiency and expertise in the resolution of student complaints. In situations in which a student alleges multiple, related complaints involving separate procedures (for example, a grade appeal and a discrimination complaint), the Administration reserves the right to process the complaints separately or to consolidate them. When complaints are consolidated, the Administration shall use the procedure that will provide the student with the maximum amount of process.

Impartiality of College Officials

To facilitate prompt responses to grievances or grievance appeals and to preclude conflicts of interest, the Dean of Compliance & Judicial Affairs, the Associate Vice Chancellor of Student Services, the Campus Provosts, and/or the Chancellor may designate another College official to consider a grievance or grievance appeal and to render a decision.

Retaliation Prohibited

Every student has the right to file a complaint or to participate in an investigation without being subjected to retaliation. Retaliation is an adverse action taken by an employee or student against an individual who makes a good faith complaint using the procedures in this code, including making a good faith report of discrimination, harassment, or sexual misconduct or who participates in an investigation pertaining to a complaint of discrimination, harassment, or sexual misconduct. For an action or decision to be considered adverse, it must be materially adverse and be of the type that would dissuade a reasonable person from exercising his or her rights to file a complaint or to participate in an investigation. Unlawful retaliation does not include petty slights or annoyances. Any employee or student who engages in retaliation may be subject to disciplinary action.

Grade Appeals

Complaint Procedure 100

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,
San Jacinto College 2019-2020

The procedures for appealing a grade shall be as follows:

1. Student meeting with instructor: The student and instructor shall discuss the grade that the student believes is incorrect. At this meeting, only the grades on tests, projects, reports, etc. and the grading system listed in 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. 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 unless exceptional circumstances warrant additional time. 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 will be 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:

a. 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 inform 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 meeting.

b. If, in the opinion of the department chair, the student provided 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 or by the dean due to exceptional circumstances.

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 in step No. 2 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 written 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 full-time instructor to be named by the student, one full-time instructor to be named by the instructor and one 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 other persons familiar with the matter.

Within five (5) working days after this hearing, the Academic Appeals Committee will notify the student, the instructor, and the Provost in writing of its findings:

1. A grade change is justified and will be made; or
2. A grade change is not justified and will not be made.

If the decision of the Academic Appeals Committee is to change the grade, the Provost will have five (5) working days to make the grade change. The decision of the Academic Appeals Committee will be final.

The same appeal process will be followed when the instructor is not accessible or no longer employed by San Jacinto College by excluding the step involving the instructor.

General Complaints

Complaint Procedure 200

200.1 Scope

San Jacinto College complies with the U.S. Department of San Jacinto College complies with the U.S. Department of Education’s Program Integrity regulations, which require each state to have a student...
complaint procedure in order for public and private higher education institutions to be eligible for federal Title IV funds. Current, former, and prospective students may initiate a complaint with the Texas Higher Education Coordinating Board, after exhausting the institution’s grievance/complaint process, by sending the required forms either by electronic mail to studentcomplaints@thecb.state.tx.us, or by mail to the 

Texas Higher Education Coordinating Board  
Office of General Counsel  
P.O. Box 12788, Austin, Texas 78711-2788  

Facsimile transmissions of the forms are not accepted.

A general complaint is a College-related problem, decision or condition that a student believes to be unfair, inequitable or adversely affecting the student’s education at San Jacinto College or that affects the student’s ability to use College services and programs. A student may not use Procedure 200 to complain about decisions affecting other students or persons. Procedure 200 also may not be used to address matters for which special procedures are published. In particular, this general procedure may not be used to address grade appeals; harassment and discrimination and sexual misconduct complaints under Complaint Procedure 300 or 400; traffic appeals; FERPA complaints (see Student Records Management Policy); or student discipline complaints, hearings or appeals.

Barring exceptional and unforeseeable circumstances, students should file their complaints within 10 working days after the problem, decision or condition arose. Complaints filed more than 10 working days after the conclusion of the semester or the posting of the student’s final grades (whichever is later) will not be accepted.

**200.2 Steps**

1. Students who wish to file a complaint should, when necessary, consult with an educational planner or counselor for guidance on how to identify the individuals to whom the student should direct the complaint under Step 2 or Step 3.

2. The student should first discuss the complaint with the College employee most directly responsible for the condition which brought about the complaint. Most matters will be resolved at this level.

3. If the discussion at Step 2 does not resolve the matter to the student’s satisfaction and the student wishes to pursue the matter, the student may discuss the matter with the next level of supervisory authority.

4. If the discussion at Step 3 still does not resolve the matter to the student’s satisfaction, the student may file a written complaint. The complaint shall be filed within 7 working days. The written complaint shall identify the requested remedy. If the general complaint is against another student or involves the application of a College policy or procedure, the student shall file the complaint with the Dean of Compliance & Judicial Affairs or Compliance Officer. The Dean of Compliance & Judicial Affairs or Compliance Officer will take appropriate action on matters within his or her jurisdiction or route the complaint to the appropriate senior administrator for action. If the general complaint is against a College employee, the Dean of Compliance & Judicial Affairs or Compliance Officer will forward the complaint to the Employee Relations Department. The Dean and the Employee Relations Department shall confer and determine an appropriate investigation plan. The officials conducting the review or investigation shall prepare a written communication regarding the disposition of the complaint. The officials shall render a decision within 20 working days, absent extenuating circumstances.

5. If the response at Step 4 does not resolve the matter to the student’s satisfaction, the student may seek further review by submitting a written request to the campus Provost or appropriate senior level administrator. The decision of the campus Provost or appropriate senior level administrator will be final.

**Discrimination and Harassment Complaints**

**Complaint Procedure 300**

**300.1 General Statement of Purpose**

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. Students, trustees, administrators, faculty, staff and other agents of the College will not engage in conduct constituting unlawful harassment or discrimination.

The College will promptly investigate all allegations of harassment and discrimination and take appropriate disciplinary action against individuals who engage in prohibited conduct. Disciplinary action may include dismissal of employees, expulsion of students and removal of visitors. The policy against discrimination applies to all programs and activities, including:

- Admission to programs of study
- Access to enrollment in courses
- Career placement services
- Counseling and guidance materials, tests and practices
- Technical education
- Physical education
- Competitive athletics
- Graduation requirements
- Student rules, regulations and benefits
- Treatment as a married and/or pregnant student
- Housing
- Financial assistance
- Health services
- School-sponsored extracurricular activities
- Other aid, benefits or services

These rules apply to harassment or discrimination that occurs in any program or activity under the substantial control of the College, whether the activity or program is on campus or off campus. Additionally, these rules apply when off-campus harassment or discrimination causes continuing effects on campus.

All administrators, faculty and staff are encouraged to promptly report incidents of discrimination, harassment, and violence. Additionally, the College has designated certain College employees as responsible officials who have mandatory reporting duties. The following employees have a duty to report alleged instances of unlawful discrimination or harassment that come to their attention:

- Chancellor, the Deputy Chancellor and President, Vice Chancellors, Associate Vice Chancellors, Assistant Vice Chancellors, Vice Presidents, Provosts, and Deans
• Registrar
• Faculty and Department Chairs
• Compliance Officer
• Police Department personnel
• Counselors
• Risk Management personnel
• Human Resources personnel
• Athletics personnel
• Directors and Managers

The College has appointed a Title IX/Discrimination Prevention Team to facilitate the College’s compliance with state and federal laws prohibiting discrimination. A list of the team is found in Section 400.2 of Complaint Procedure 400.

300.2 Scope of this Procedure

This procedure applies to all harassment or discrimination complaints based on a protected status except those involving sexual harassment, sexual assault, domestic violence, dating violence or stalking. Complaints involving sexual harassment, sexual assault, domestic violence, dating violence or stalking are addressed in Complaint Procedure 400.

This procedure does apply to sexual discrimination complaints, such as a complaint alleging denial of admission into a program because of gender. In the event that a sexual discrimination complaint overlaps with a sexual harassment complaint, or in the event it is difficult to determine whether a sexual discrimination complaint encompasses sexual harassment, Procedure 400 will be used.

300.3 What is Discrimination?

Discrimination is the act of treating similarly situated persons differently based on their race, color, national origin, religion, sex, disability, age, veteran or military status, genetic information or any other basis protected by law.

As it pertains to students, this prohibition applies to all College operations and activities including but not limited to admission, housing, discipline, counseling, scholarship and loan programs, co-curricular experiences and athletics.

300.4 What is Discriminatory Harassment?

Discriminatory harassment is a violation of Section 3.2.3 of the Code of Student Conduct.

Discriminatory harassment is physical, verbal or nonverbal conduct directed at a person because of his or her race, color, national origin, sex (gender), religion, disability, age, veteran status, genetic information or any other protected status and that is so severe, persistent or pervasive that the conduct:

1. Affects a person’s ability to participate in or benefit from an educational program or activity, or creates an intimidating, threatening, hostile or offensive educational environment;
2. Has the purpose or effect of substantially or unreasonably interfering with the student’s academic performance or an employee’s work performance; or
3. Otherwise adversely affects a person’s educational or employment opportunities.

Examples of prohibited harassment include, but are not limited to, offensive or derogatory comments, jokes or slurs because of the individual’s protected status or because of the individual’s need for an accommodation based on disability or religion; actions that are designed to humiliate or embarrass; physical aggression or assault; display of graffiti or printed material promoting racial, ethnic or other negative stereotypes; or other kinds of aggressive conduct such as theft or damage to property when motivated by the individual’s protected status.

300.5 Complaint Process

Students may use this procedure to file a complaint against another a student, a College employee, College contractors or third parties who are visiting the College or participating in a College activity. The student may seek an informal or formal resolution at any time. No student is ever required to make a report to the person who is engaging in discrimination or harassment. A student may seek resolution or general information about this complaint procedure by contacting any member of the Title IX/ Discrimination Prevention Team.

300.5.1 Formal Complaint Process

Although students may file a complaint at any time, the College encourages students to report their concerns as soon as possible after the alleged incident(s) so that prompt action can be taken to investigate and resolve the complaint. A delay in reporting may result in a loss of evidence or witness memory or availability. Students are encouraged to file complaints during the same semester that the alleged incidents occurred or within 30 days of the conclusion of the semester.

Content of complaint: Complaints must be signed and in writing. Students are encouraged to describe all incident(s) or action(s) considered by the reporting party to be harassing, discriminatory, or violent. Reporting parties should provide the following information:

• Contact information, including address, telephone and email;
• Name of person(s) directly responsible for alleged violation(s);
• Date(s) and place(s) of alleged violations;
• Nature of alleged violation(s);
• Detailed description of the specific conduct that is the basis of alleged violation(s);
• Copies of documents, emails, text messages, photos or other physical evidence pertaining to the alleged violation(s);
• Names of any witnesses to alleged violation(s);
• Action requested to resolve the situation; and
• Any other relevant information.

The student’s failure to provide a written complaint or to provide the information requested above may adversely impact the ability of the College to conduct a complete and thorough investigation and may limit the College’s ability to take appropriate corrective action.

Where to file the complaint: Complaints from students alleging harassment or discrimination should be filed with the Compliance and Judicial Affairs Office through the following link: www.sanjac.edu/ incident-report. Students may also report to any member of the Title IX/ Discrimination Prevention Team.

To ensure that all student complaints are properly processed, any College administrator who receives a complaint under this procedure shall promptly notify the Compliance and Judicial Affairs Office in writing.

Title IX/Discrimination Prevention Team:
Vice Chancellor, Human Resources, Organizational and Talent Effectiveness
300.5.2 Processing the Complaint

The Compliance and Judicial Affairs Office will evaluate student complaints to determine whether they are covered by this procedure. If the nature of the complaint is governed by Title IX of the Education Amendments of 1972, the Compliance and Judicial Affairs Office shall notify the Title IX Coordinator. The Title IX Coordinator shall determine whether interim action is needed (e.g., a mutual no-contact order, temporary reassignment or temporary suspension), and will assign an impartial investigator from the Compliance and Judicial Affairs Office. The College shall make every effort to avoid depriving any student of his or her education prior to a ruling on the merits. The College may remove a respondent from an education program or activity on an emergency basis only after undertaking an individualized safety and risk analysis, determining that an immediate threat to the health or safety of others justifies removal, and providing the respondent with notice and an opportunity to challenge the removal immediately following the removal.

An investigation will be initiated if the complaint is within the scope of this policy and articulates sufficient specific facts, which if determined to be true, would support a finding that the College's policy was violated. The College may decline to process a complaint under a variety of circumstances, including:

1. the complaint does not describe conduct covered by this procedure;
2. the student declines to cooperate in the College's investigation; or
3. the complaint has been withdrawn or the requested remedy has already been implemented, or was offered and rejected.

If the College declines to process a complaint pursuant to this procedure, the College shall send the student a written notification explaining the reason(s). The name and contact information of the investigator will...
be provided to the reporting party and the respondent. The respondent shall receive written notice of the allegations and shall be informed of his or her right to submit a written response to the allegations within 10 working days, unless unusual circumstances warrant additional time. The written notice shall inform the respondent that retaliation against the reporting party is prohibited and may result in disciplinary action. In cases in which the respondent is an employee, the complaint will be forwarded to the Employee Relations Department, and processed according to the applicable procedure relating to employees. In these cases, the Compliance and Judicial Affairs Office will only conduct interviews with students, and information will be shared with the Employee Relations Department to determine outcomes.

**300.5.3 Investigating the Complaint**

Barring unusual circumstances (e.g., multiple reporting parties, a complaint filed the day before the winter break), the investigation shall be completed as promptly as possible, typically within 60 to 90 days. An investigation shall commence even if a law enforcement agency is conducting a separate criminal investigation against the respondent. However, the College’s investigation may be temporarily delayed when requested by police investigators or the District Attorney’s Office. If the College’s investigation is temporarily delayed due to a pending criminal investigation, the reporting party and respondent will be notified.

The investigator shall interview the reporting party, the respondent and other individuals determined by the investigator to possess relevant information. The reporting party and the respondent each will be permitted to provide witness names, documentation or other tangible evidence to the investigator.

During meetings pertaining to the investigation and complaint process, the reporting party and the respondent may be represented or accompanied by an advisor. Advisors, however, may not actively participate in meetings or interview witnesses.

The investigator shall prepare a written report that summarizes and analyzes the available evidence (including inculpatory and exculpatory evidence) and objectively evaluates the parties and witnesses. The report shall state whether a preponderance of the evidence establishes a violation of the College’s policies. The investigator will consider the totality of circumstances, including the context and duration of the conduct and its severity. Facts will be considered on the basis of what is reasonable to persons of ordinary sensitivity.

If the respondent is a student, the findings shall be submitted to the Associate Vice Chancellor of Student Services or designee. If the respondent is an employee or visitor, the findings shall be submitted to the employee or designee. If a complaint is directed at an administrator who would otherwise act on behalf of another person, the complaint will be assigned to that person or to another individual determined by the investigator to possess relevant evidence.

The investigator’s written report shall be submitted to the Associate Vice Chancellor or designee. The Associate Vice Chancellor will permit the respondent and the reporting party to review the findings report via email. Student identifiable information, if confidential by law, will be redacted. The respondent and the reporting party will each have 10 working days to provide comments to the Associate Vice Chancellor via email. After receiving the comments from the parties (or if no comments are submitted), the Associate Vice Chancellor will confer with the investigator to discuss the findings and to review the investigation record. The Associate Vice Chancellor shall determine whether additional investigation is needed, whether to dismiss the complaint due to insufficient evidence, or whether to proceed with a disciplinary consequence or other corrective action. The action shall be reasonably calculated to prevent a recurrence of the misconduct and/or to ameliorate its impact. The Compliance and Judicial Affairs Office will prepare a final determination letter, which shall be sent to the respondent and the reporting party outlining the decision and any disciplinary or corrective action. The final determination may be redacted to protect student information that is confidential by law under the Family Educational Rights & Privacy Act. All deadlines in this procedure may be extended by mutual agreement or for good cause.

**300.6 Review and Appeals**

If the investigation does not result in the assignment of disciplinary consequences against the respondent, the reporting party may submit a written appeal to the Provost or designee. The request for an appeal must be submitted within 10 working days of the final determination. The reporting party may submit a written brief with his or her request for an appeal. The Provost or designee shall provide written notice to the respondent of the appeal. The respondent will have 10 working days to respond to the appeal and the parties’ briefs, if any. The Provost or designee shall review the record and issue a written ruling within 20 working days. A copy of the ruling shall be provided to both parties.

If the respondent is proposed for major discipline (expulsion, a suspension exceeding five days, or revocation or withdrawal of a degree), he or she may request a hearing to contest the charge(s) and the sanction(s) under Section 4.8 of the Code of Student Conduct. If the proposed discipline involves a consequence that is less than expulsion, a suspension exceeding five days, or revocation or withdrawal of a degree, the student may request a hearing under Section 4.9 of the Code of Student Conduct. If the respondent desires to contest the sanction(s) but not the charge(s), then the respondent may submit a written appeal to the Provost or designee. The Provost or designee shall review the record and issue a written response within 20 working days. A copy of the response shall be provided to both parties. The Provost or designee shall notify the reporting party of any sanctions that are imposed that directly relate to the reporting party.

If the respondent is an employee and is assigned a disciplinary consequence, he or she may seek review in accordance with the employment policies of the College.

**300.7 Retaliation Prohibited**

Every student has the right to file a complaint or to participate in an investigation without being subject to retaliation. Retaliation is an adverse action taken by an employee or student against an individual who makes a good faith report of discrimination, harassment or sexual misconduct or who participates in an investigation pertaining to a complaint of discrimination, harassment or sexual misconduct. For an action or decision to be considered adverse, it must be materially adverse and be of the type that would dissuade a reasonable person from exercising his or her rights to file a complaint or to participate in an investigation. Unlawful retaliation does not include petty slights or annoyances. Any employee or student who engages in retaliation may be subject to disciplinary action.

**300.8 Office for Civil Rights**

Students who have experienced discrimination or harassment based on a protected status may file a complaint with the U.S. Department
Veteran Information

Virtually all academic, vocational, and technical courses leading to a degree or certificate at San Jacinto College are approved for veteran training. The College maintains a Veteran Services department located on the Central, North, and South campuses.

Students who expect to receive veteran education benefits while attending San Jacinto College should contact the Veteran Services department located on their desired campus.

In certain cases, dependents of veterans may be eligible to receive US Department of Veteran Affairs (VA) benefits. Students who expect to receive veteran education benefits while attending San Jacinto College should contact the Veteran Services department 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 Veteran Services department located on the campus they will attend.

For more information on VA eligibility requirements, students may visit www.gibill.va.gov (http://www.gibill.va.gov) or the Veteran Services department website at www.sanjac.edu/veterans.

Steps in Applying for Veteran Benefits

Students applying for federal VA education benefits should submit the following documents to the Veteran Services department located on their desired campus:

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, students may go to: www.vets.gov/education/apply (http://www.vets.gov/education/apply). To request Community College of the Air Force transcripts, students may go to: www.airuniversity.af.mil (http://www.airuniversity.af.mil); and
4. Submit a copy of the Certificate of Eligibility (COE).

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

1. Complete the online VA form 22-1995 at www.gibill.va.gov (http://www.gibill.va.gov);
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, students may go to: https://jst.doded.mil. To request Community College of the Air Force transcripts, students may go to: www.airuniversity.af.mil (http://www.airuniversity.af.mil); and
4. Submit a copy of the Certificate of Eligibility (COE).

All documents should be taken to the Certificate of Eligibility (COE).

Course Withdrawal

The VA does not allow automatic payment of benefits for a grade of W, I, or FX. 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. The VA allows for a one-time exclusion for dropping up to six credit hours.

Before withdrawing from any course, students must notify the campus VA Certifying Official to have their VA holds removed. The student is responsible for withdrawing from the course(s) by following the College’s standard withdrawal procedures. For students who need to drop a college preparatory course(s), approval must be granted by the Veteran Services department. Students must also notify their VA representatives once the class(es) have been dropped.

Repeating Courses

Students using VA educational benefits or Hazlewood may not retake a course in which a passing grade or a temporary grade of I has been awarded. The student is responsible for knowing which course(s) have been completed.

Transfer students should submit all academic transcripts from both accredited and non-accredited schools. This also includes military transcripts. Transcripts should be received and evaluated prior to selecting courses, when possible. The College is required to notify the VA of any course duplications, and appropriate changes will be made when a student has taken a class that has been deemed successfully completed.

Program Requirements

Federal and state 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 or Hazlewood 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. Free tutoring is available at the Student Success Centers located at Central, North, and South campuses. Students needing extra tutoring should contact the College Veteran Services department located on their campus for additional information.
Federal and State Academic Standards of Progress (Part 6)

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

VA students on academic probation and suspension will be reported to 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.

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 US 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. In addition, students who are claiming the Hazlewood exemption are required to follow Financial Aid’s minimum GPA and excessive hour criteria. Satisfactory Academic Progress (SAP) is a 2.0 grade point average (GPA) and no more than 90 overall hours. Students who do not meet the minimum satisfactory academic progress standards are encouraged to apply for a Hazelwood appeal. 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:

<table>
<thead>
<tr>
<th>GPA</th>
<th>Numerical Code</th>
</tr>
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<tbody>
<tr>
<td>4.0</td>
<td>A</td>
</tr>
<tr>
<td>3.0</td>
<td>B</td>
</tr>
<tr>
<td>2.0</td>
<td>C</td>
</tr>
<tr>
<td>1.0</td>
<td>D</td>
</tr>
<tr>
<td>0.0</td>
<td>F</td>
</tr>
</tbody>
</table>

   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. **Time Frame Component**

   A student receiving the Hazelwood exemption will be expected to complete his/her San Jacinto College educational objective or course of study within the first 90 credit hours attempted.

   Grades of F, FX, I, NG, W, and repeated courses are counted in the aggregate total number of hours attempted. Students will not receive exemption if the class has previously been passed unless the program of study requires students to take the course more than twice.

   

Required Documents

To comply with the requirements of the Texas Veterans Commission, during or before registration, veterans or qualifying dependents must present six documents for the files at San Jacinto College:

**Veteran required Hazelwood documents:**

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 (http://www.gibill.va.gov);
3. A completed formal application for Hazelwood Act benefits. Applications are available at the Veteran Services department on each campus, or students may also download the application from the Texas Veterans Commission website at www.tvc.texas.gov/documents/TVC-ED-1-Hazlewood_Application.pdf (http://www.tvc.texas.gov/documents/TVC-ED-1-Hazlewood_Application.pdf); and
4. Veterans must also provide a copy of their Hazelwood Online Database Report. hazlewood.tvc.texas.gov/students (https://hazlewood.tvc.texas.gov/students).

**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 the campus Veteran Services department for more information.

**Children and Spouses required Hazelwood documents:**

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 VA office stating the military 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). Students may request an education benefits letter by calling 1-888-442-4551;
4. A completed formal application for Hazlewood Act benefits. Applications are available at the Veteran Services department. Applications are also available at the Texas Veterans Commission website at www.tvc.texas.gov/documents/TVC-ED-1-Hazlewood_Application.pdf (http://www.tvc.texas.gov/documents/TVC-ED-1-Hazlewood_Application.pdf); and
5. Students must provide a copy of their Hazlewood Online Database Report. https://hazlewood.tvc.texas.gov/students/.

**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 Veteran Services department. Applications are also available at the Texas Veterans Commission website at www.tvc.texas.gov/documents/TVC-ED-1-Hazlewood_Application.pdf;

4. Students must provide all transcripts from any previously attending institutions; and

5. Students must provide a copy of their Hazlewood Online Database Report. https://hazlewood.tvc.texas.gov/students/.

**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 College will use the Defense Activity for Nontraditional Education Support (DANTES) and the Office of Education Credit and Credentials of the American Council on Education (ACE) to determine proficiency. In assigning credits of this nature, the College will use the recommendations of the American Council on Education (ACE) as guidelines.

Students may earn a maximum of 15 credit hours of course work from official military transcripts and two credit hours of PHED activity courses and apply these toward a degree or certificate in this nontraditional manner. The college will evaluate and assign credit only for the courses that apply to the student's major and used for graduation. The College will evaluate the credit as transfer work, which will not appear on the San Jacinto College transcript. The College will assign the courses 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 College 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 transcripts, students may log into https://jst.doded.mil/official.html.

For more information on CLEP examinations, students may review: www.dantes.doded.mil/examinations/earn-college-credit/clep.html#sthash.XNsprPD2.dpbs and the Community College of the Air Force (CAF) (accredited and all college-level credits will be accepted): www.au.af.mil/au/ccaf/transcripts.asp.
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ACCOUNTING (ACCT)

**ACCT 2301 Principles of Financial Accounting  3 Credits  (3 Lec, 0 Lab)**
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(s): Reading level 7, Math Level 9

Course Type: Academic

**ACCT 2302 Principles of Managerial Accounting  3 Credits  (3 Lec, 0 Lab)**
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(s): ACCT 2301 – Principles of Financial Accounting

Course Type: Academic
ACCOUNTING (ACNT)

ACNT 1303  Introduction to Accounting I  3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

ACNT 1304  Introduction to Accounting II  3 Credits  (3 Lec, 0 Lab)
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(s): 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.
Course Type: Technical

ACNT 1311  Introduction to Computerized Accounting  3 Credits  (3 Lec, 0 Lab)
This course provides an introduction to utilizing the computer in maintaining accounting records with primary emphasis on a general ledger package. It is recommended that students have prior knowledge and/or experience in accounting.
Course Type: Technical

ACNT 1313  Computerized Accounting Applications  3 Credits  (3 Lec, 0 Lab)
This course makes use of the computer to develop and maintain accounting records and to process common business applications for managerial decision-making.
Prerequisite(s): ACNT 1311
Course Type: Technical

ACNT 1329  Payroll and Business Tax Accounting  3 Credits  (3 Lec, 1 Lab)
This course 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(s): Reading level 4
Course Type: Technical

ACNT 1331  Federal Income Tax: Individual  3 Credits  (3 Lec, 0 Lab)
This course is a study of the federal tax law for preparation of individual income tax returns.
Prerequisite(s): Reading level 4
Course Type: Technical

ACNT 2302  Accounting Capstone  3 Credits  (3 Lec, 0 Lab)
This course allows students to apply broad knowledge of the accounting profession through discipline specific projects involving the integration of individuals and teams performing activities to simulate workplace situations.
Course Type: Technical

ACNT 2303  Intermediate Accounting I  3 Credits  (3 Lec, 0 Lab)
This course is an analysis of generally accepted accounting principles, concepts, and theory underlying the preparation of financial statements.
Prerequisite(s): ACCT 2301
Course Type: Technical

ACNT 2304  Intermediate Accounting II  3 Credits  (3 Lec, 0 Lab)
This course is a continued in-depth analysis of generally accepted accounting principles, underlying the preparation of financial statements including comparative analysis and statement of cash flows.
Prerequisite(s): ACCT 2301
Course Type: Technical

ACNT 2309  Cost Accounting  3 Credits  (3 Lec, 0 Lab)
This course focuses on budgeting, cost analysis, and cost control systems, using traditional and contemporary costing methods and theories in decision making.
Prerequisite(s): ACCT 2302 or equivalent
Course Type: Technical

ACNT 2345  Technical Writing for Accountants  3 Credits  (3 Lec, 0 Lab)
This course will examine and apply effective written business and accounting communications. This course may also be offered for qualifying education credit for CPA examinations by Texas community colleges that meet Texas State Board of Public Accountancy standards.
Course Type: Technical

ACNT 2366  Practicum (or Field Experience) - Accounting  3 Credits  (0 Lec, 21 Lab)
This course is practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): ACCT 2301, or Department Chair approval
Course Type: Technical

ACNT 2367  Practicum (or Field Experience) - Accounting  3 Credits  (0 Lec, 21 Lab)
This course is practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): ACCT 2301, or Department Chair approval
Course Type: Technical
AGRICULTURE (AGRI)

AGRI 1131  The Agricultural Industry  1 Credit  (1 Lec, 0 Lab)
This course is an overview of agriculture and the American agricultural system, including an examination of career opportunities and requirements.
Prerequisite(s): Reading level 6
Course Type: Academic

AGRI 1309  Computer in Agriculture  3 Credits  (3 Lec, 1 Lab)
This course focuses on a survey of the use of computers in agricultural applications.
Prerequisite(s): Reading level 6
Course Type: Academic

AGRI 1315  Horticulture  3 Credits  (3 Lec, 0 Lab)
This course covers the structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management.
Prerequisite(s): Reading level 6
Course Type: Academic

AGRI 1319  Introductory Animal Science  3 Credits  (3 Lec, 0 Lab)
This course covers scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock.
Prerequisite(s): Reading level 6
Course Type: Academic

AGRI 1407  Agronomy  4 Credits  (3 Lec, 2 Lab)
This course covers principles and practices in the development, production, and management of field crops including growth and development, climate, plant requirements, pest management, and production methods.
Prerequisite(s): Reading level 6
Course Type: Academic

AGRI 2317  Introduction to Agricultural Economics  3 Credits  (3 Lec, 0 Lab)
This course covers the fundamental economic principles and their applications in the agricultural industry.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8
Course Type: Academic

AGRI 2321  Livestock Evaluation I  3 Credits  (3 Lec, 0 Lab)
This course focuses on the evaluation and grading of market cattle, swine, sheep, and goats and their carcasses and wholesale cuts. Emphasis will be placed on value determination. Selection and evaluation of breeding cattle, sheep, swine, and goats with emphasis on economically important traits.
Prerequisite(s): Reading level 7
Course Type: Academic
AIR CONDITIONING TECH (HART)

HART 1356  EPA Recovery Certification Preparation  3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

HART 1401  Basic Electricity for HVAC  4 Credits  (2 Lec, 4 Lab)
This course focuses on principles of electricity as required by HVAC, including proper use of test equipment, electrical circuits, and component theory and operation.
Course Type: Technical

HART 1407  Refrigeration Principles  4 Credits  (2 Lec, 4 Lab)
This course is an introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, refrigerant handling, and refrigeration components and safety.
Course Type: Technical

HART 1441  Residential Air Conditioning  4 Credits  (2 Lec, 4 Lab)
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.
Co-requisite(s): HART 1401 and HART 1407 or department chair approval
Course Type: Technical

HART 1445  Gas and Electrical Heating  4 Credits  (2 Lec, 4 Lab)
This is a study of the procedures and principles used in servicing heating systems including gas-fired furnaces and electric heating systems.
Co-requisite(s): HART 1401 and HART 1407 or department chair approval
Course Type: Technical

HART 2301  Air Conditioning and Refrigeration Codes  3 Credits  (3 Lec, 0 Lab)
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(s): HART 1441 or HART 2441 or department chair approval
Course Type: Technical

HART 2302  Commercial Air Conditioning System Design  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): HART 2345 and HART 2441 or department chair approval
Course Type: Technical

HART 2303  Residential A/C System Design  3 Credits  (2 Lec, 2 Lab)
This course is a study of the properties of air and results of cooling, heating, humidifying or dehumidifying. Other topics include analyzing and calculating heat gain or heat loss necessary for equipment selection and balancing air systems.
Prerequisite(s): HART 1441 and HART 1445 or department chair approval
Course Type: Technical

HART 2304  Commercial Air Conditioning System Design  3 Credits  (3 Lec, 0 Lab)
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(s): HART 1441 or HART 2441, and HART 1445 or department chair approval
Course Type: Technical

HART 2305  Residential A/C System Design  3 Credits  (2 Lec, 2 Lab)
This course is a study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems.
Prerequisite(s): HART 1441 and HART 1445 or department chair approval
Course Type: Technical

HART 2306  Specialized Commercial Refrigeration  3 Credits
This advanced course covers the components, accessories, and service of specialized refrigeration units, such as ice machines, soft-serve machines, cryogenics, and cascade systems.
Prerequisite(s): HART 1401 and HART 1407 or department chair approval. (3:2:4)
Course Type: Technical

HART 2331  Advanced Electricity for HVAC  3 Credits  (2 Lec, 4 Lab)
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(s): HART 1441 or HART 2441, and HART 1445 or department chair approval
Course Type: Technical

HART 2336  Air Conditioning Troubleshooting  3 Credits  (2 Lec, 4 Lab)
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.
Co-requisite(s): HART 2331 or department chair approval
Course Type: Technical

HART 2338  Air Conditioning Installation and Startup  3 Credits  (2 Lec, 4 Lab)
A study of air conditioning system installation, refrigerant piping, condensate disposal, and air cleaning equipment with emphasis on startup and performance testing.
Prerequisite(s): HART 1441 or HART 2441 and HART 1445 or department chair approval
Course Type: Technical

HART 2343  Industrial Air Conditioning  3 Credits  (2 Lec, 2 Lab)
This course is a study of components, accessories, applications, and installation of air conditioning systems above a 25 ton capacity.
Prerequisite(s): HART 2441 and HART 2331 or department chair approval
Course Type: Technical

HART 2345  Residential A/C System Design  3 Credits  (2 Lec, 2 Lab)
This course is a study of the properties of air and results of cooling, heating, humidifying or dehumidifying. Other topics include analyzing and calculating heat gain or heat loss necessary for equipment selection and balancing air systems.
Prerequisite(s): HART 1441 and HART 1445 or department chair approval
Course Type: Technical

HART 2349  Heat Pumps  3 Credits  (2 Lec, 2 Lab)
This course is a study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems.
Prerequisite(s): HART 1441 and HART 1445 or department chair approval
Course Type: Technical

HART 2357  Specialized Commercial Refrigeration  3 Credits
This advanced course covers the components, accessories, and service of specialized refrigeration units, such as ice machines, soft-serve machines, cryogenics, and cascade systems.
Prerequisite(s): HART 1401 and HART 1407 or department chair approval. (3:2:4)
Course Type: Technical
HART 2368 Practicum (or Field Experience) - HVAC/R Technology/Technician  3 Credits  (0 Lec, 21 Lab)
This course offers practical general workplace training through individualized learning plans developed by the employer, the college, and the student. The student must have a HVAC/R related workplace experience to participate in this course. This workplace experience can be either a paid or unpaid. While the College can assist the student in locating a potential workplace experience, it is the student’s responsibility to have this in place by the beginning of class.
Prerequisite(s): Completion of at least 16 semester hours of HVAC/R (HART) courses, an acceptable workplace experience, and an interview with a HVAC/R faculty.
Course Type: Technical

HART 2431 Advanced Electricity  4 Credits  (3 Lec, 3 Lab)
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(s): HART 1441, HART 1445 or department chair approval
Course Type: Technical

HART 2434 Advanced Air Conditioning Controls  4 Credits  (2 Lec, 4 Lab)
This course covers the theory and application of electrical control devices, electromechanical controls, and/or pneumatic controls.
Co-requisite(s): HART 2331 or HART 2431 or department chair approval
Course Type: Technical

HART 2436 Air Conditioning Troubleshooting  4 Credits  (3 Lec, 3 Lab)
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.
Prerequisite(s): HART 1441 and HART 1445 or department chair approval
Course Type: Technical

HART 2441 Commercial Air Conditioning  4 Credits  (2 Lec, 4 Lab)
This course is a study of components, applications, and installation of air conditioning systems with capacities of 25 tons or less. Co-requisites: HART 1401 and HART 1407 or department chair approval
Course Type: Technical

HART 2442 Commercial Refrigeration  4 Credits  (2 Lec, 4 Lab)
This course focuses on both the theory and practice in the maintenance of commercial refrigeration at both medium and low temperature applications, and ice machines.
Co-requisite(s): HART 2331 or department chair approval
Course Type: Technical

HART 2444 Residential Air Conditioning Systems Design  4 Credits  (4 Lec, 0 Lab)
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.
Course Type: Technical

HART 2449 Heat Pumps  4 Credits  (3 Lec, 3 Lab)
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.
Prerequisite(s): HART 1401 and HART 1407 or department chair approval
Course Type: Technical
ANTHROPOLOGY (ANTH)

ANTH 2301 Introduction to Physical Anthropology 3 Credits  (3 Lec, 0 Lab)
The study of human origins and bio-cultural adaptations. Topics may include primatology, genetics, human variation, forensics, health, and ethics in the discipline.
Prerequisite(s): Reading level 7, Writing level 7

Course Type: Academic

ANTH 2302 Introduction to Archaeology 3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7 and Writing level 7

Course Type: Academic

ANTH 2346 General Anthropology 3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 6 and Writing level 6

Course Type: Academic

ANTH 2351 Cultural Anthropology 3 Credits  (3 Lec, 0 Lab)
The study of human cultures. Topics may include social organization, institutions, diversity, interactions between human groups, and ethics in the discipline.
Prerequisite(s): Reading level 7 and Writing level 7

Course Type: Academic
APPLIED MATHEMATICS (TECM)

TECM 1301 Industrial Mathematics 3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 6, Writing level 6

Course Type: Technical
APPLIED PHYSICAL SCI (SCIT)

SCIT 1307  Applied Human Anatomy and Physiology I  3 Credits  (3 Lec, 0 Lab)
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, endocrine, digestive, urinary, reproductive, respiratory and circulatory. Emphasis on homeostasis.
Course Type: Technical

SCIT 1318  Applied Physics  3 Credits  (2 Lec, 2 Lab)
This course is an Introduction to physics for industrial applications including vectors, motion, mechanics, simple machines, matter, heat, and thermodynamics.
Prerequisite(s): TECM 1301 or higher, and Reading level 7, Writing level 7, Math level 6
Course Type: Technical

SCIT 1370  Introduction to Analytical Chemistry  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): MLAB 1101
Course Type: Technical

SCIT 1395  Special Topics in Analytical Chemistry  3 Credits
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(s): MLAB 1101 (3:3:0).
Course Type: Technical

SCIT 1414  Applied General Chemistry I  4 Credits  (3 Lec, 3 Lab)
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.
Prerequisite(s): MATH 1333 or MATH 1314 or higher, Reading level 7, Writing level 7, Math level 6
Course Type: Technical

SCIT 1418  Applied Physics  4 Credits  (3 Lec, 3 Lab)
This is an introduction to physics for industrial applications including vectors, motion, mechanics, simple machines, matter, heat, and thermodynamics.
Prerequisite(s): TECM 1301 or higher, Reading level 7, Writing level 7, Math level 6
Course Type: Technical
ART (ARTC)

ARTC 1302 Digital Imaging I 3 Credits (2 Lec, 4 Lab)
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.
Course Type: Technical

ARTC 1317 Design Communication I 3 Credits (2 Lec, 4 Lab)
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.
Prerequisite(s): ARTC 1325 or department chair approval
Course Type: Technical

ARTC 1325 Introduction to Computer Graphics 3 Credits (2 Lec, 4 Lab)
This is a survey of computer design concepts, terminology, processes, and procedures. Topics include computer graphics hardware, digital images, digital publishing, vector-based graphics, and interactive multimedia.
Course Type: Technical

ARTC 1327 Typography 3 Credits (2 Lec, 4 Lab)
This is 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.
Prerequisite(s): ARTC 1325 or approval of department chair
Course Type: Technical

ARTC 2335 Portfolio Development for Graphic Design 3 Credits (2 Lec, 4 Lab)
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.
Prerequisite(s): ARTC 1317 or approval of department chair
Course Type: Technical

ARTC 2347 Design Communication II 3 Credits (2 Lec, 4 Lab)
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.
Prerequisite(s): ARTC 1317 or approval of department chair
Course Type: Technical

ARTC 2366 Field Experience-Graphic Design, Commercial Art and Illustration 3 Credits (1 Lec, 20 Lab)
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.
Prerequisite(s): ARTC 1317 or approval of department chair
Course Type: Technical
ART (ARTS)

ARTS 1301  Art Appreciation  3 Credits  (3 Lec, 0 Lab)
This is a general introduction to the visual arts designed to create an
appreciation of the vocabulary, media, techniques, and purposes of the
discipline. Students will critically interpret and evaluate works of art
within formal, cultural, and historical contexts.
Prerequisite(s): Reading level 6
Course Type: Academic

ARTS 1303  Art History I (Prehistoric to the 14th century)  3 Credits  (3
Lec, 0 Lab)
This is a chronological analysis of the historical and cultural contexts of
the visual arts from prehistoric times to the 14th century.
Prerequisite(s): Reading level 7 and Writing level 7
Course Type: Academic

ARTS 1304  Art History II (14th century to the present)  3 Credits  (3 Lec, 0 Lab)
This is a chronological analysis of the historical and cultural contexts of
the visual arts from the 14th century to the present day.
Prerequisite(s): Reading level 7 and Writing level 7
Course Type: Academic

ARTS 1311  Design I (2-dimensional)  3 Credits  (2 Lec, 4 Lab)
This is an introduction to the fundamental terminology, concepts, theory,
and application of two-dimensional design.
Course Type: Academic

ARTS 1312  Design II (3-dimensional)  3 Credits  (2 Lec, 4 Lab)
This is an introduction to the fundamental terminology, concepts, theory,
and application of three-dimensional design.
Prerequisite(s): ARTS 1311
Course Type: Academic

ARTS 1316  Drawing I  3 Credits  (2 Lec, 4 Lab)
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.
Course Type: Academic

ARTS 1317  Drawing II  3 Credits  (2 Lec, 4 Lab)
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(s): ARTS 1316
Course Type: Academic

ARTS 2311  Design III  3 Credits  (2 Lec, 4 Lab)
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(s): Department chair approval.
Course Type: Academic

ARTS 2313  Design Communications I  3 Credits  (2 Lec, 4 Lab)
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(s): ARTC 1325 or ARTS 2348 or concurrent enrollment with
ARTC 1325 or ARTS 2348 with department chair approval
Course Type: Academic

ARTS 2316  Painting I  3 Credits  (2 Lec, 4 Lab)
This course explores the potentials of painting media, with emphasis on
color and composition.
Course Type: Academic

ARTS 2317  Painting II  3 Credits  (2 Lec, 4 Lab)
This is a continuation of painting I with emphasis on individual
expression.
Prerequisite(s): ARTS 2316 or approval of department chair
Course Type: Academic

ARTS 2323  Life Drawing I  3 Credits  (2 Lec, 4 Lab)
Life drawing I is a studio course emphasizing structure and action of the
human figure.
Prerequisite(s): ARTS 1316
Course Type: Academic

ARTS 2326  Sculpture I  3 Credits  (2 Lec, 4 Lab)
This is an exploration of various sculptural approaches in a variety of
media, including additive and subtractive techniques.
Course Type: Academic

ARTS 2333  Printmaking I  3 Credits  (2 Lec, 4 Lab)
This is an introduction to printmaking, including monoprints, relief,
intaglio, and serigraphy.
Course Type: Academic

ARTS 2341  Art Metals I  3 Credits  (2 Lec, 4 Lab)
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.
Course Type: Academic

ARTS 2346  Ceramics I  3 Credits  (2 Lec, 4 Lab)
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.
Course Type: Academic
ARTS 2347  Ceramics II  3 Credits  (2 Lec, 4 Lab)
A studio course, this continuation of ARTS 2346 explores clay as an artistic medium, concentrating on combinations of mechanical and hand-built techniques.
Prerequisite(s): ARTS 2346
Course Type: Academic

ARTS 2348  Digital Art I  3 Credits  (2 Lec, 4 Lab)
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.
Course Type: Academic

ARTS 2356  Fine Arts Photography I  3 Credits  (2 Lec, 4 Lab)
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.
Course Type: Academic

ARTS 2357  Fine Arts Photography II  3 Credits  (2 Lec, 4 Lab)
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(s): COMM 1318 or ARTS 2356 or approval of department chair
Course Type: Academic

ARTS 2366  Watercolor I  3 Credits  (2 Lec, 4 Lab)
This course introduces the basic techniques and materials of transparent and opaque watercolors.
Course Type: Academic

ARTS 2389  Academic Cooperative-Art  3 Credits  (1 Lec, 8 Lab)
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.
Prerequisite(s): ARTS 2348 and ARTS 2349, Reading level 6, Writing level 6
Course Type: Academic
ART (ARTV)

ARTV 1303  Basic Animation  3 Credits  (2 Lec, 4 Lab)
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(s): ARTC 1325 or approval of department chair
Course Type: Technical

ARTV 1341  3-D Animation I  3 Credits  (2 Lec, 4 Lab)
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(s): ARTV 1345 or approval of department chair
Course Type: Technical

ARTV 1345  3-D Modeling and Rendering  3 Credits  (2 Lec, 4 Lab)
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.
Course Type: Technical

ARTV 1351  Digital Video  3 Credits  (2 Lec, 4 Lab)
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.
Course Type: Technical

ARTV 2351  3-D Animation II  3 Credits  (2 Lec, 4 Lab)
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(s): ARTV 1341
Course Type: Technical
ASTRONOMY (ASTR)

ASTR 1103 Stars and Galaxies (lab) 1 Credit (0 Lec, 3 Lab)
This lab survey course in astronomy examines the history of astronomy, the stars, galaxies, galaxy clusters, and the universe outside our solar system. Lab work will include nighttime observations. The student will only receive credit for either ASTR 1103 or PHYS 1103.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8;
Co-requisite(s): ASTR 1303
Course Type: Academic

ASTR 1104 The Solar System (lab) 1 Credit (0 Lec, 3 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. The student will only receive credit for either ASTR 1104 or PHYS 1104.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8;
Co-requisite(s): ASTR 1304
Course Type: Academic

ASTR 1303 Stars and Galaxies (lecture) 3 Credits (3 Lec, 0 Lab)
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. The student will only receive credit for either ASTR 1303 or PHYS 1303.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8;
Co-requisite(s): ASTR 1103
Course Type: Academic

ASTR 1304 The Solar System (lecture) 3 Credits (3 Lec, 0 Lab)
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. The student will only receive credit for either ASTR 1304 or PHYS 1304.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8;
Co-requisite(s): ASTR 1104
Course Type: Academic
AUTO COLLISION REPAIR (ABDR)

ABDR 1303 Vehicle Design and Structural Analysis 3 Credits (2 Lec, 2 Lab)
This introduction to the collision repair industry emphasizes safety, professionalism, and vehicle structural design.
Course Type: Technical

ABDR 1307 Collision Repair Welding 3 Credits (2 Lec, 2 Lab)
This is a study of collision repair welding and cutting procedures.
Course Type: Technical

ABDR 1315 Vehicle Trim and Hardware 3 Credits (2 Lec, 2 Lab)
This is an in-depth study of vehicle trim and glass service.
Course Type: Technical

ABDR 1323 Front and Rear Wheel Alignment 3 Credits (2 Lec, 2 Lab)
This is an in-depth study of vehicle steering and suspension components including alignment, tire rotation, and balancing.
Course Type: Technical

ABDR 1431 Basic Refinishing 4 Credits (3 Lec, 3 Lab)
This is an introduction to current refinishing products, shop safety, and equipment used in the automotive refinishing industry. Emphasis is on surface preparation, masking techniques, and refinishing of replacement parts.
Course Type: Technical

ABDR 1441 Structural Analysis and Damage Report I 4 Credits (3 Lec, 3 Lab)
This course offers expanded training in the roughing and shaping procedures on automotive sheet metal necessary to make satisfactory body repairs. Emphasis is on the alignment of component parts such as doors, hoods, front-end assemblies, and deck lids.
Course Type: Technical

ABDR 1449 Automotive Plastic and Sheet Molding Compound Repair 4 Credits (3 Lec, 3 Lab)
This is a comprehensive course in repair of non-metal composites, including the use of various types of adhesives.
Course Type: Technical

ABDR 1519 Basic Metal Repair 5 Credits (3 Lec, 5 Lab)
This course offers in-depth coverage of basic metal principles and working techniques, including proper tool usage and product application.
Course Type: Technical

ABDR 1555 Non-Structural Metal Repair 5 Credits (3 Lec, 5 Lab)
This course demonstrates sheet metal repair skills using mechanical and hydraulic equipment. Emphasis is on attachment devices used to straighten and align exterior body panels.
Course Type: Technical

ABDR 1558 Intermediate Refinishing 5 Credits (3 Lec, 5 Lab)
This course offers expanded training in mixing and spraying of automotive topcoats. Emphasis is on formula ingredients, reducing, thinning, and special spraying techniques. This course also introduces partial panel refinishing techniques and current industry paint removal techniques.
Course Type: Technical

ABDR 2255 Collision Repair Estimating 2 Credits (2 Lec, 1 Lab)
This is an advanced course in collision estimating and development of an accurate damage report.
Course Type: Technical

ABDR 2257 Collision Shop Management 2 Credits (2 Lec, 1 Lab)
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.
Course Type: Technical

ABDR 2353 Color Analysis and Paint Matching 3 Credits (2 Lec, 2 Lab)
This is an advanced course in color theory, analysis, tinting, and advanced blending techniques for commercially acceptable paint matching.
Course Type: Technical

ABDR 2380 Cooperative Education - Autobody/Collision and Repair Technology 3 Credits (1 Lec, 14 Lab)
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(s): Reading level 4
Course Type: Technical

ABDR 2502 Auto Body Mechanical and Electrical Service 5 Credits (3 Lec, 5 Lab)
This is a course in the repair, replacement, and/or service of collision damaged mechanics or electrical systems. Topics include drive train removal, re-installation 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.
Course Type: Technical

ABDR 2541 Major Collision Repair and Panel Replacement 5 Credits (3 Lec, 5 Lab)
This course covers instruction in preparation of vehicles for major repair processes, interpreting information from damage reports, planning repair sequences, selecting appropriate tools, and organizing removed parts for re-installation.
Course Type: Technical

ABDR 2549 Advanced Refinishing 5 Credits (3 Lec, 5 Lab)
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.
Course Type: Technical

ABDR 2551 Specialized Refinishing Techniques 5 Credits (3 Lec, 5 Lab)
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.
Course Type: Technical
AUTOMOTIVE TECHNOLOGY (AUMT)

AUMT 1201 Introduction and Theory of Automotive Technology 2 Credits  (1 Lec, 3 Lab)
This course provides an introductory overview of the automotive service industry including, history, safety practices, shop equipment and tools, vehicle subsystems, service publications, professional responsibilities, and automobile maintenance.
Prerequisite(s): Reading level 7, Writing level 6, Math level 4
Course Type: Technical

AUMT 1272 Automotive Maintenance and Repair 2 Credits  (1 Lec, 3 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 6, Math level 4
Course Type: Technical

AUMT 1316 Automotive Suspension and Steering 3 Credits  (2 Lec, 4 Lab)
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.
Prerequisite(s): AUMT 2421, Reading level 7, Writing level 6, Math level 4
Course Type: Technical

AUMT 1319 Automotive Engine Repair 3 Credits  (2 Lec, 4 Lab)
This course is the study of the fundamentals of engine operation, diagnosis and repair. Emphasis on identification, inspection, measurements, disassembly, repair, and reassembly of the engine. May be taught manufacturer specific.
Prerequisite(s): AUMT 1407; Reading level 7, Writing level 6, Math level 4
Course Type: Technical

AUMT 1345 Automotive Climate Control Systems 3 Credits  (2 Lec, 4 Lab)
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.
Prerequisite(s): AUMT 1407; Reading level 7, Writing level 6, Math level 4
Course Type: Technical

AUMT 1407 Automotive Electrical Systems 4 Credits  (2 Lec, 6 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.
Prerequisite(s): Reading level 7, Writing level 6, Math level 4
Course Type: Technical

AUMT 1410 Automotive Brake Systems 4 Credits  (2 Lec, 6 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 manufacturer specific.
Prerequisite(s): AUMT 2421; Reading level 7, Writing level 6, Math level 4
Course Type: Technical

AUMT 1416 Automotive Suspension and Steering 4 Credits  (2 Lec, 6 Lab)
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.
Prerequisite(s): AUMT 2421, Reading level 7, Writing level 6, Math level 4
Course Type: Technical

AUMT 1419 Automotive Engine Repair 4 Credits  (2 Lec, 6 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 6, Math level 4
Course Type: Technical

AUMT 1445 Automotive Climate Control Systems 4 Credits  (2 Lec, 6 Lab)
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.
Prerequisite(s): AUMT 2421, Reading level 7, Writing level 6, Math level 6
Course Type: Technical

AUMT 1471 Manufacturers Maintenance and Pre-Delivery 4 Credits  (2 Lec, 6 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 6, Math level 6
Course Type: Technical
**BIOLOGY (BIOL)**

**BIOL 1106 Biology for Science Majors I (lab) 1 Credit (0 Lec, 3 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(s): Reading level 7;
Co-requisite(s): BIOL 1306

**Course Type: Academic**

**BIOL 1107 Biology for Science Majors II (lab) 1 Credit (0 Lec, 3 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(s): Reading level 7; co-requisite BIOL 1307

**Course Type: Academic**

**BIOL 1108 Biology for Non-Science Majors I (lab) 1 Credit (0 Lec, 3 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(s): Reading level 7;
Co-requisite(s): BIOL 1308

**Course Type: Academic**

**BIOL 1109 Biology for Non-Science Majors II (lab) 1 Credit (0 Lec, 3 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(s): Reading level 7;
Co-requisite(s): BIOL 1309

**Course Type: Academic**

**BIOL 1111 General Botany (lab) 1 Credit (0 Lec, 3 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: Reading level 7;
Prerequisite(s): MATH 1314 - Successful completion of College Algebra is recommended. Reading level 7;
Co-requisite(s): BIOL 1311

**Course Type: Academic**

**BIOL 1113 General Zoology (lab) 1 Credit (0 Lec, 3 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: Reading level 7;
Prerequisite(s): MATH 1314 - Successful completion of College Algebra is recommended. Reading level 7;
Co-requisite(s): BIOL 1313

**Course Type: Academic**

**BIOL 1306 Biology for Science Majors I (lecture) 3 Credits (3 Lec, 0 Lab)**
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(s): Reading level 7;
Co-requisite(s): BIOL 1106

**Course Type: Academic**

**BIOL 1307 Biology for Science Majors II (lecture) 3 Credits (3 Lec, 0 Lab)**
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(s): Reading level 7;
Co-requisite(s): BIOL 1107

**Course Type: Academic**

**BIOL 1308 Biology for Non-Science Majors I (lecture) 3 Credits (3 Lec, 0 Lab)**
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(s): Reading level 7;
Co-requisite(s): BIOL 1108

**Course Type: Academic**

**BIOL 1309 Biology for Non-Science Majors II (lecture) 3 Credits (3 Lec, 0 Lab)**
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(s): Reading level 7;
Co-requisite(s): BIOL 1109

**Course Type: Academic**
Biology (BIOL)

Biology (BIOL)

Biol 1311 General Botany 3 Credits (3 Lec, 0 Lab)
This is a lecture course in the fundamental biological concepts relevant
to plants 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: Reading level 7;
Prerequisite(s): BIOL 1314 - Successful completion of College Algebra is
recommended. Reading level 7;
Co-requisite(s): Biol 1111

Course Type: Academic

Biol 1313 General Zoology (lecture) 3 Credits (3 Lec, 0 Lab)
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: Reading level 7;
Prerequisite(s): BIOL 1314 - Successful completion of College Algebra is
recommended. Reading level 7;
Co-requisite(s): Biol 1113

Course Type: Academic

Biol 1322 Nutrition and Diet Therapy 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7. Cross-listed as HECO 1322. Credit will
only be issued for BIOL 1322 or HECO 1322, not both.

Course Type: Academic

Biol 2101 Human Anatomy and Physiology I (lab) 1 Credit (0 Lec, 3
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(s): Reading level 7, Writing level 7, Math level 8;
Co-requisite(s): Biol 2301

Course Type: Academic

Biol 2102 Human Anatomy and Physiology II (lab) 1 Credit (0 Lec, 3
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).
Prerequisite(s): BIOL 2301/2101 (final grade of C or better recommended),
and Reading level 7;
Co-requisite(s): Biol 2302

Course Type: Academic

Biol 2120 Microbiology for Health Science Majors (lab) 1 Credit (0 Lec, 3
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.)
Prerequisite(s): 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(s): Biol 2320

Course Type: Academic

Biol 2121 Microbiology for Science Majors (lab) 1 Credit (0 Lec, 3 Lab)
This lab course focuses on laboratory activities that will reinforce
principles of microbiology, including metabolism, structure, function,
genetics, and phylogeny of microbes. The course will also examine the
interactions of microbes with each other, hosts, and the environment.
(A student may not receive credit for both BIOL 2320/2120 and
BIOL 2321/2121.)
Prerequisite(s): 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(s): Biol 2321. Some prerequisites may be waived with
permission of department chair.

Course Type: Academic

Biol 2301 Human Anatomy and Physiology I (lecture) 3 Credits (3 Lec,
0 Lab)
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(s): Reading level 7, Writing level 7, Math level 8;
Co-requisite(s): Biol 2301

Course Type: Academic

Biol 2302 Human Anatomy and Physiology II (lecture) 3 Credits (3 Lec,
0 Lab)
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.
Prerequisite(s): BIOL 2301/2101 (recommended with a final grade of C or
better), and Reading level 7;
Co-requisite(s): Biol 2302

Course Type: Academic

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BIOL 2320 Microbiology for Health Science Majors (lecture) 3 Credits (3 Lec, 0 Lab)
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.)
Prerequisite(s): 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(s): 2120
Course Type: Academic

BIOL 2321 Microbiology for Science Majors (lecture) 3 Credits (3 Lec, 0 Lab)
This course focuses on the principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. (A student may not receive credit for both BIOL 2320/2120 and BIOL 2321/2121.)
Prerequisite(s): 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(s): BIOL 2121
Course Type: Academic

BIOL 2389 Academic Cooperative 3 Credits (1 Lec, 8 Lab)
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(s): Eight hours of biology and/or environment science; Reading level 7, Writing level 7, Math level 8
Course Type: Academic

BIOL 2404 Introduction to Anatomy and Physiology (lecture & lab) 4 Credits (3 Lec, 3 Lab)
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 - Health Information Technology, Medical Imaging, Respiratory Care, and Surgical Technology programs. Students seeking a nursing degree must take BIOL 2301/2101 and BIOL 2302/2102 (formerly BIOL 2401 and 2402).
Prerequisite(s): Reading level 7
Course Type: Academic
BIOMEDICAL EQUIPMENT (BIOM)

BIOM 1309  Applied Biomedical Equipment Technology  3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical

BIOM 1315  Medical Equipment Networks  3 Credits  (2 Lec, 2 Lab)
This course covers the identification of basic principles of medical equipment networking including hardware, software, and connectivity issues of medical equipment in healthcare facilities.
Co-requisite(s): BIOM 1309
Course Type: Technical

BIOM 1341  Medical Circuits Troubleshooting  3 Credits  (2 Lec, 2 Lab)
This course covers development of skills in troubleshooting of medical electronic circuits and utilization of test equipment.
Co-requisite(s): BIOM 1309
Course Type: Technical

BIOM 1350  Diagnostic Ultrasound Imaging Systems  3 Credits  (2 Lec, 4 Lab)
This course covers diagnostic ultrasound imaging systems including basic systems troubleshooting and problem solving.
Co-requisite(s): BIOM 1309
Course Type: Technical

BIOM 1355  Medical Electronic Applications  3 Credits  (2 Lec, 2 Lab)
This course covers the presentation of sensors, transducers, and supporting circuits used in medical instrumentation devices.
Co-requisite(s): BIOM 1309
Course Type: Technical

BIOM 2301  Safety in Health Care Facilities  3 Credits  (3 Lec, 1 Lab)
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.
Co-requisite(s): BIOM 1309
Course Type: Technical

BIOM 2311  General Medical Equipment I  3 Credits  (2 Lec, 3 Lab)
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.
Co-requisite(s): BIOM 1309 and CETT 1302
Course Type: Technical

BIOM 2315  Physiological Instruments I  3 Credits  (2 Lec, 2 Lab)
This course is the theory of operation, circuit analysis, and troubleshooting physiological instruments.
Co-requisite(s): BIOM 1309
Course Type: Technical

BIOM 2319  Fundamentals of X-Ray and Medical Imaging Systems  3 Credits  (2 Lec, 3 Lab)
This course is a study in radiation theory and safety hazards, fundamental circuits, and application of X-ray systems including circuit analysis and troubleshooting.
Co-requisite(s): BIOM 1309
Course Type: Technical

BIOM 2343  General Medical Equipment II  3 Credits  (2 Lec, 3 Lab)
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(s): BIOM 2311
Course Type: Technical

BIOM 2389  Internship - Biomedical Technology/Technician  3 Credits  (0 Lec, 18 Lab)
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.
Prerequisite(s): BIOM 1309, 1315, 1341, 1355, and 2311 or Department Chair Approval.
Course Type: Technical
BUSINESS (BUSG)

BUSG 1341 Small Business Financing 3 Credits (3 Lec, 0 Lab)
This course focuses on understanding the financial structure of a small business. Topics include: business financing, budgeting, record keeping, taxation, insurance, and banking.
Course Type: Technical

BUSG 2309 Small Business Management 3 Credits (3 Lec, 0 Lab)
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(s): Reading level 4
Course Type: Technical

BUSG 2317 Business Law/Commercial 3 Credits (3 Lec, 0 Lab)
This course explores the relationships of law and business as they relate to commercial transactions.
Prerequisite(s): Reading level 7
Course Type: Technical
BUSINESS (BUSI)

BUSI 1301  Business Principles  3 Credits  (3 Lec, 0 Lab)
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(s): Reading level 6
Course Type: Academic

BUSI 2301  Business Law  3 Credits  (3 Lec, 0 Lab)
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: Reading level 7
Prerequisite(s): High school coursework in U.S. history and government, or equivalent. Reading level 7
Course Type: Academic

BUSI 2304  Business Communications  3 Credits  (3 Lec, 0 Lab)
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(s): Reading level 4
Course Type: Academic

BUSI 2305  Business Statistics  3 Credits  (3 Lec, 0 Lab)
This course will provide the student with descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis.
Prerequisite(s): MATH 1324 or 1314 and BCIS 1305
Course Type: Academic
BUSINESS MANAGEMENT (BMGT)

BMGT 1301 Supervision 3 Credits (3 Lec, 0 Lab)
This study of the role of the supervisor examines managerial functions as applied to leadership, counseling, motivation, and human skills.
Course Type: Technical

BMGT 1305 Communications in Management 3 Credits (3 Lec, 0 Lab)
This course explains the basic theory and processes of communication skills necessary for the management of an organization’s workforce.
Prerequisite(s): Reading level 4
Course Type: Technical

BMGT 1309 Information and Project Management 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

BMGT 1313 Principles of Purchasing 3 Credits (3 Lec, 0 Lab)
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(s): Reading level 4
Course Type: Technical

BMGT 1325 Office Management 3 Credits (3 Lec, 0 Lab)
This course covers systems, procedures, and practices related to organizing and planning office work, supervising employee performance, and exercising leadership skills.
Course Type: Technical

BMGT 1327 Principles of Management 3 Credits (3 Lec, 0 Lab)
This course focuses on the concepts, terminology, principles, theory, and issues relevant to management in organizations.
Course Type: Technical

BMGT 1331 Production and Operations Management 3 Credits (3 Lec, 0 Lab)
This course teaches fundamentals of the various techniques used in the practice of production and operations management, including location, design, and resource allocation.
Prerequisite(s): Reading level 4
Course Type: Technical

BMGT 1341 Business Ethics 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

BMGT 1344 Negotiations and Conflict Management 3 Credits (3 Lec, 0 Lab)
This course covers theories which aid in the diagnosis of interpersonal and intergroup conflict. The role of manager as negotiator, intermediary, and problem-solver.
Prerequisite(s): Reading level 4
Course Type: Technical

BMGT 2303 Problem Solving and Decision Making 3 Credits (3 Lec, 0 Lab)
This course explains decision-making and problem-solving processes in organizations utilizing logical and creative problem-solving techniques. Application of theory is provided by experiential activities using managerial decision tools.
Prerequisite(s): Reading level 4
Course Type: Technical

BMGT 2309 Leadership 3 Credits (3 Lec, 0 Lab)
This course explores leadership and its relationship to management. Prepares the student with leadership and communication skills needed to motivate and identify leadership styles.
Prerequisite(s): Reading level 4
Course Type: Technical

BMGT 2368 Practicum (or Field Experience) 3 Credits (0 Lec, 21 Lab)
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.
Prerequisite(s): Six hours of Business Management courses or approval of the program director, and Reading level 4
Course Type: Technical

BMGT 2369 BMGT 2369 Practicum - Business Administration and Management 3 Credits (0 Lec, 21 Lab)
This course offers practical, general workplace training and experience supported by an individualized learning plan developed by the employer, college, and students. 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.
Prerequisite(s): Six hours of Business Management courses or approval of the program director. Reading level 4
Course Type: Technical

BMGT 2382 Cooperative Education - Business Administration and Management, General 3 Credits (1 Lec, 20 Lab)
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. Includes a lecture component.
Prerequisite(s): Reading level 4
Course Type: Technical
BUSINESS MANAGEMENT (HRPO)

HRPO 1311 Human Relations  3 Credits  (3 Lec, 0 Lab)
This course teaches practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment.
Course Type: Technical

HRPO 2301 Human Resources Management  3 Credits  (3 Lec, 0 Lab)
This course teaches behavioral and legal approaches to the management of human resources in organizations.
Course Type: Technical

HRPO 2303 Employment Practices  3 Credits  (3 Lec, 0 Lab)
This course is a study of employment issues including techniques for human resource forecasting, selection, and placement including interview techniques, pre-employment testing, and other predictors. Topics include recruitment methods, the selection process, Equal Employment Opportunity (EEO), EEO recordkeeping, and Affirmative Action Plans.
Prerequisite(s): Reading level 4
Course Type: Technical
BUSINESS MANAGEMENT (MRKG)

MRKG 1302  Principles of Retailing  3 Credits  (3 Lec, 0 Lab)
This course is an introduction to the retailing environment, types of retailers, current trends, the employment of retailing techniques, and factors that influence retailing.
Course Type: Technical

MRKG 1311  Principles of Marketing  3 Credits  (3 Lec, 0 Lab)
This course is an introduction to the marketing mix functions and process. Includes identification of consumer and organizational needs and explanation of environmental issues.
Course Type: Technical

MRKG 2312  E-Commerce Marketing  3 Credits  (3 Lec, 0 Lab)
This course explores electronic tools utilized in marketing with a focus on marketing communications in developing customer relationships.
Course Type: Technical

MRKG 2333  Principles of Selling  3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical
MRMT 1307  Medical Transcription I  3 Credits  (3 Lec, 1 Lab)
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-requisite(s): HPRS 1106 and 1271
Course Type: Technical
BUSINESS OFFICE TECH (POFI)

POFI 1001 Digital Literacy-IC3 9.6 Credits
Learn to use a computer in a business environment. Begin with the keyboard; learning typing skills. Then get an introduction to the computer hardware. Learn how to use the operating system. Gain an understanding of some basic business applications - MS Word, MS Excel and PowerPoint. Additionally, learn to use the internet and email. You are now prepared to take the optional IC3 certification exam.

POFI 1341 Computer Applications II 3 Credits (3 Lec, 1 Lab)
This course is a continued study of current computer terminology and technology that provides advanced skill development in computer hardware, software applications, and procedures.
Prerequisite(s): BCIS 1305
Course Type: Technical

POFI 1349 Spreadsheets 3 Credits (3 Lec, 1 Lab)
Intermediate-level instruction includes in-depth coverage in the use of spreadsheet software for business applications. Topics include worksheet creation, modification, and graphics.
Course Type: Technical
BUSINESS OFFICE TECH (POFM)

POFM 1317 Medical Administrative Support 3 Credits (3 Lec, 1 Lab)
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.
Course Type: Technical

POFM 1327 Medical Insurance 3 Credits (3 Lec, 0 Lab)
This survey of medical insurance includes the life cycle of various claim forms, terminology, litigation, patient relations, and ethical issues.
Course Type: Technical
BUSINESS OFFICE TECH (POFT)

POFT 1301 Business English 3 Credits (3 Lec, 0 Lab)
This course is an introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business.
Course Type: Technical

POFT 1309 Administrative Office Procedures I 3 Credits (3 Lec, 0 Lab)
This course focuses on the study of current office procedures, duties, and responsibilities applicable to an office environment.
Course Type: Technical

POFT 1313 Professional Workforce Preparation 3 Credits (3 Lec, 0 Lab)
This course focuses on preparation for career success including ethics, interpersonal relations, professional attire, and advancement.
Course Type: Technical

POFT 1319 Records and Information Management I 3 Credits (3 Lec, 0 Lab)
This course covers an introduction to basic records information management systems including manual and electronic filing.
Course Type: Technical

POFT 1325 Business Math Using Technology 3 Credits (3 Lec, 0 Lab)
This course offers skill development in business math problem-solving using technology.
Course Type: Technical

POFT 1328 Business Presentations 3 Credits (3 Lec, 1 Lab)
This course offers skill development in planning and conducting business presentations including communication and media skills.
Prerequisite(s): BCIS 1305
Course Type: Technical

POFT 2301 Intermediate Keyboarding 3 Credits (3 Lec, 1 Lab)
This course offers a continuation of keyboarding skills emphasizing acceptable speed and accuracy levels and formatting documents.
Prerequisite(s): BCIS 1305
Course Type: Technical

POFT 2364 Practicum 3 Credits (0 Lec, 21 Lab)
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(s): 15 credit hours of courses in this program which must include at least one of the following courses: ACNT 1304, POFI 1341, POFT 1325, POFT 1328, or POFT 2301. A program GPA of at least 2.0 is required, or Department approval.
Course Type: Technical
BUSINESS TECHNOLOGY (BCIS)

BCIS 1305  Business Computer Applications  3 Credits  (2 Lec, 2 Lab)
This course introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the Internet.
Course Type: Academic
CHEMISTRY (CHEM)

CHEM 1105 Introductory Chemistry I (lab) 1 Credit (0 Lec, 3 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.
Prerequisite(s): Reading level 7, Writing level 6, and Math level 6;
Co-requisite(s): CHEM 1305
Course Type: Academic

CHEM 1111 General Chemistry I (lab) 1 Credit (0 Lec, 3 Lab)
This lab course covers basic laboratory experiments supporting theoretical principles presented in CHEM 1311; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports.
Prerequisite(s): Reading level 7, Math level 9 and Math 1314 or higher;
Co-requisite(s): CHEM 1311
Course Type: Academic

CHEM 1112 General Chemistry II (lab) 1 Credit (0 Lec, 3 Lab)
This second semester of the general inorganic chemistry lab covers basic laboratory experiments supporting theoretical principles presented in CHEM 1312; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports.
Prerequisite(s): CHEM 1311/1111, Reading level 7 and Math level 9;
Co-requisite(s): CHEM 1312
Course Type: Academic

CHEM 1305 Introductory Chemistry I (lecture) 3 Credits (3 Lec, 0 Lab)
This lecture 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.
Prerequisite(s): Reading level 7, Writing level 6, and Math level 6;
Co-requisite(s): CHEM 1105
Course Type: Academic

CHEM 1311 General Chemistry I (lecture) 3 Credits (3 Lec, 0 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.
Prerequisite(s): Reading level 7, Math level 9 and Math 1314 or higher;
Co-requisite(s): CHEM 1111
Course Type: Academic

CHEM 1312 General Chemistry II (lecture) 3 Credits (3 Lec, 0 Lab)
This second semester of the general inorganic chemistry lecture covers chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry.
Prerequisite(s): CHEM 1311/1111, Reading level 7 and Math level 9;
Co-requisite(s): CHEM 1112
Course Type: Academic

CHEM 2123 Organic Chemistry I (lab) 1 Credit (0 Lec, 3 Lab)
This laboratory course accompanies CHEM 2323, Organic Chemistry I. Laboratory activities will reinforce fundamental principles of organic chemistry, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules.
Methods for the purification and identification of organic compounds will be examined.
Prerequisite(s): CHEM 1312/1112;
Co-requisite(s): 2323
Course Type: Academic

CHEM 2125 Organic Chemistry II (lab) 1 Credit (0 Lec, 3 Lab)
This laboratory course accompanies CHEM 2325, Organic Chemistry II. Laboratory activities reinforce advanced principles of organic chemistry, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules.
Prerequisite(s): CHEM 2323/2123;
Co-requisite(s): CHEM 2325
Course Type: Academic

CHEM 2123 Organic Chemistry I (lecture) 3 Credits (3 Lec, 0 Lab)
In this introductory organic chemistry lecture course fundamental principles of organic chemistry will be studied, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. THIS COURSE IS INTENDED FOR STUDENTS IN SCIENCE OR PRE-PROFESSIONAL PROGRAMS.
Prerequisite(s): CHEM 1312/1112;
Co-requisite(s): CHEM 2123
Course Type: Academic
CHEM 2325 Organic Chemistry II (lecture) 3 Credits (3 Lec, 0 Lab)
This second semester of introductory organic chemistry lecture course advanced principles of organic chemistry will be studied, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. THIS COURSE IS INTENDED FOR STUDENTS IN SCIENCE OR PRE-PROFESSIONAL PROGRAMS.
Prerequisite(s): CHEM 2323/2123;
Co-requisite(s): CHEM 2125
Course Type: Academic

CHEM 2389 Academic Cooperative 3 Credits (1 Lec, 8 Lab)
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. Prerequisite(s): Eight hours of chemistry; Reading level 7, Writing level 7, Math level 8
Course Type: Academic
CDEC 1319 Child Guidance 3 Credits (3 Lec, 1 Lab)
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.
Course Type: Technical

CDEC 1321 The Infant and Toddler 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

CDEC 1323 Observation and Assessment 3 Credits (3 Lec, 1 Lab)
This course is a study of observation skills, assessment techniques, and documentation of children's development.
Course Type: Technical

CDEC 1356 Emergent Literacy for Early Childhood 3 Credits (3 Lec, 0 Lab)
This course explores the principles, methods, and materials for teaching young children language and literacy through a play-based, integrated curriculum.
Course Type: Technical

CDEC 1359 Children With Special Needs 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

CDEC 1413 Curriculum Resources for Early Childhood Programs 4 Credits (3 Lec, 3 Lab)
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.
Course Type: Technical

CDEC 1417 Child Development Associate Training I 4 Credits (3 Lec, 4 Lab)
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.
Course Type: Technical

CDEC 1458 Creative Arts for Early Childhood 4 Credits (3 Lec, 3 Lab)
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.
Course Type: Technical

CDEC 1470 Educational Aide Associate 4 Credits (3 Lec, 3 Lab)
The Educational Aide Associate course is designed to offer participants the knowledge and resources needed to meet the requirements of the Paraeducator. This course contains 48-hours of observation and field experience in early childhood programs and ISD settings. Included in this course are the essential skills for working as a Paraeducator. Participants will gain the knowledge, skills and strategies through observation and assessment needed to develop and implement educational activities when working with students. Course content covered is relevant to the three subjects of study: Learning Environment, Curriculum content, and Instructional guidance. Each curricula area includes objectives, lessons, developmentally appropriate activities, and assessments that are related to all three subjects of study: reading, writing, and math.
Course Type: Technical

CDEC 2326 Administration of Programs for Children I 3 Credits (3 Lec, 0 Lab)
This course includes the application of management procedures for early childhood 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.
Course Type: Technical

CDEC 2328 Administration of Programs for Children II 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

CDEC 2341 The School Age Child 3 Credits (3 Lec, 0 Lab)
This is a study of programs for the school age child, including an overview of development, learning environments, materials, activities, and guidance techniques.
Course Type: Technical

CDEC 2366 Practicum (or Field Experience) - Child Care Provider/Assistant 3 Credits (0 Lec, 21 Lab)
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(s): CDEC 1319
Course Type: Technical

CDEC 2407 Math and Science for Early Childhood 4 Credits (3 Lec, 3 Lab)
This course is an exploration of principles, methods, and materials for teaching children math and science concepts and process skills through discovery and play.
Course Type: Technical
CDEC 2422  Child Development Associate Training II  4 Credits  (3 Lec, 4 Lab)
This course is a continuation of the study of the requirements for the Child Development Associate (CDA). The six functional areas of study include safe, healthy, learning environment, self, social, and guidance.
Course Type: Technical

CDEC 2424  Child Development Associate Training III  4 Credits  (3 Lec, 4 Lab)
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.
Course Type: Technical
CHILD DEVELOPMENT (TECA)

**TECA 1303 Families, School and Community  3 Credits  (3 Lec, 1 Lab)**
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.
Course Type: Academic

**TECA 1311 Educating Young Children  3 Credits  (3 Lec, 1 Lab)**
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.
Course Type: Academic

**TECA 1318 Wellness of the Young Child  3 Credits  (3 Lec, 1 Lab)**
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.
Course Type: Academic

**TECA 1354 Child Growth and Development  3 Credits  (3 Lec, 0 Lab)**
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.
Course Type: Academic
CHINESE (CHIN)

CHIN 1411  Beginning Chinese I  4 Credits  (3 Lec, 2 Lab)
This is a fundamental skills course in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.
Prerequisite(s): Reading level 6
Course Type: Academic

CHIN 1412  Beginning Chinese II  4 Credits  (3 Lec, 2 Lab)
This is a fundamental skills course in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.
Prerequisite(s): CHIN 1411
Course Type: Academic

CHIN 2311  Intermediate Chinese I  3 Credits  (3 Lec, 0 Lab)
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(s): CHIN 1412
Course Type: Academic

CHIN 2312  Intermediate Chinese II  3 Credits  (3 Lec, 0 Lab)
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(s): CHIN 2311
Course Type: Academic
GUST 0105 College Student Success (NCBO) 1 Credit (1 Lec, 0 Lab)
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(s): Reading level 2, Writing level 4, and Math level 4
Course Type: College Prep

GUST 0305 College Student Success 3 Credits (3 Lec, 0 Lab)
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(s): Reading level 2, Writing level 4, and Math level 4
Course Type: College Prep
INRW 0101  Integrated Reading and Writing (NCBO)  1 Credit (1 Lec, 0 Lab)
This NCBO is a refresher for grammatical forms, proper punctuation, sentence and paragraph structure, sequential process of reading with emphasis on reading comprehension, vocabulary building, and literal and inferential meanings.
Prerequisite(s): Reading level 4
Course Type: College Prep

INRW 0112  NCBO for Advanced Reading and Writing  1 Credit (1 Lec, 0 Lab)
This course comprises the integration of critical reading and academic writing skills. Successful completion of this intervention if taught at the upper (exit) level fulfills TSI requirements for reading and/or writing. Note: For institutions offering one or more levels, this NCBO shall be used for upper (exit) level and may be used for lower level(s).
Prerequisite(s): Reading Level 6, Writing Level 6.
Co-requisite(s): ENGL 1301
Course Type: College Prep

INRW 0205  BASE NCBO for Integrated Reading and Writing  2 Credits (2 Lec, 0 Lab)
This course is an integration of critical reading and academic writing skills. This Intervention is designed specifically for students assessed at BASE levels 3-4 and must be part of a student's co-enrollment (co-requisite) enrollment: • as a mainstreamed intensifier providing contact hours for additional, just-in-time instructional support for the student's success in the developmental IRW course, or • as a contextualized and/or integrated basic skills instructional support for a Career/Technical Education course.
Course Type: College Prep

INRW 0301  Developmental Integrated Reading and Writing - Intermediate  3 Credits (3 Lec, 1 Lab)
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.
Course Type: College Prep

INRW 0302  Developmental Integrated Reading and Writing - Advanced  3 Credits (3 Lec, 1 Lab)
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(s): Reading level 4
Course Type: College Prep
COMMERCIAL PHOTOGRAPHY (PHTC)

PHTC 1311  Fundamentals of Photography  3 Credits  (2 Lec, 4 Lab)
This course is an introduction to camera operation and image production, composition, correct exposure and proper lighting. Emphasis is on digital photography.
Course Type: Technical
COMMUNICATIONS (COMM)

COMM 1307  Introduction to Mass Communications  3 Credits  (3 Lec, 0 Lab)
This course surveys the basic content and structural elements of mass media, as well as their functions and influences on society.
Prerequisite(s): Reading Level 7

COMM 1318  Beginning Photography  3 Credits  (1 Lec, 5 Lab)
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.

COMM 1319  Intermediate Photography  3 Credits  (1 Lec, 5 Lab)
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(s): COMM 1318 or ARTS 2356 or department chair approval

COMM 1335  Introduction to Electronic Media  3 Credits  (3 Lec, 0 Lab)
This course provides an overview of the development, regulation, economics, social impact, and industry practices in electronic media.
Prerequisite(s): Reading level 7

COMM 2311  Media Writing  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7

COMM 2315  News Reporting  3 Credits  (3 Lec, 0 Lab)
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(s): Reading level 7, Writing level 7, COMM 2311

COMM 2327  Introduction to Advertising  3 Credits  (3 Lec, 0 Lab)
This course offers students an introduction to the fundamentals of advertising including marketing theory and strategy, copywriting, design, and selection of media.
Prerequisite(s): Reading level 7

COMM 2330  Introduction to Public Relations  3 Credits  (3 Lec, 0 Lab)
This course explores the history and development of public relations. It presents the theory behind, and the process of public relations including the planning, implementation, and evaluation of PR campaigns.
Prerequisite(s): Reading level 7, Writing level 7

COMM 2339  Writing for Electronic Media  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 6, Writing level 6

Course Type: Academic
COMPUTER INFO TECH (GAME)

GAME 1303 Introduction to Game Design and Development 3 Credits (2 Lec, 2 Lab)
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.
Course Type: Technical

GAME 1304 Level Design 3 Credits (2 Lec, 2 Lab)
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 toolsets from industry titles.
Course Type: Technical

GAME 1343 Game and Simulation Programming I 3 Credits (2 Lec, 2 Lab)
This course covers game and simulation programming. It includes advanced pointer manipulation techniques and pointer applications, points and vectors, sound, and graphics.
Prerequisite(s): ITSE 1307 or COSC 1337 or GAME 1303 or department chair approval
Course Type: Technical

GAME 2332 Project Development I 3 Credits (2 Lec, 2 Lab)
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(s): GAME 1304 or department chair approval
Course Type: Technical

GAME 2341 Game Scripting 3 Credits (2 Lec, 2 Lab)
This course covers scripting languages with emphasis on game concepts and simulations.
Prerequisite(s): GAME 1304 or department chair approval.
Course Type: Technical

GAME 2359 Game & Simulation Group Project 3 Credits (2 Lec, 2 Lab)
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(s): GAME 2332 or department chair approval
Course Type: Technical
COMPUTER INFO TECH (INEW)

INEW 2340 Object-Oriented Design - Game Design  3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical
COMPUTER INFO TECH (ITCC)

ITCC 1308  Introduction to Voice over Internet Protocol (VoIP)  3 Credits  (2 Lec, 2 Lab)
This course covers basic concepts of voice over internet protocol (VoIP). Focuses on technology integration of and data transmission in network communications.
Prerequisite(s): ITCC 1301 or ITNW 1325
Course Type: Technical

ITCC 1314  CCNA 1: Introduction to Networks  3 Credits  (2 Lec, 3 Lab)
This course covers networking architecture, structure, and functions; introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum. Prerequisite or Co-requisite(s): ITSC 1305 or department chair approval
Course Type: Technical

ITCC 1440  CCNA 2: Routing and Switching Essentials  4 Credits  (3 Lec, 2 Lab)
This course describes the architecture, components, and basic operation of routers and explains the basic principles of routing and routing protocols. It also provides an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks.
Prerequisite(s): ITCC 1314 or department chair approval
Course Type: Technical

ITCC 2412  CCNA 3: Scaling Networks  4 Credits  (3 Lec, 2 Lab)
CCNA R&S: Scaling Networks (ScaN) covers the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches using advanced protocols.
Prerequisite(s): ITCC 1440 or department chair approval
Course Type: Technical

ITCC 2413  CCNA 4: Connecting Networks  4 Credits  (3 Lec, 2 Lab)
This course explains WAN technologies and network services required by converged applications in a complex network; enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements.
Prerequisite(s): ITCC 1440 or department chair approval
Course Type: Technical
COMPUTER INFO TECH (ITNW)

ITNW 1313  Computer Virtualization  3 Credits  (2 Lec, 2 Lab)
This course explores the implementation and support virtualization of client servers in a networked computing environment. This course explores installation, configuration, and management of computer virtualization workstation and servers.
Course Type: Technical

ITNW 1325  Fundamentals of Networking Technologies  3 Credits  (2 Lec, 2 Lab)
This course covers instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software.
Course Type: Technical

ITNW 1345  Implementing Network Directory Services  3 Credits  (2 Lec, 2 Lab)
This course provides students with in-depth coverage of the skills necessary to install, configure, and administer Network Directory service.
Prerequisite(s): ITNW 1354 or department chair approval
Course Type: Technical

ITNW 1353  Supporting Network Server Infrastructure  3 Credits  (2 Lec, 2 Lab)
This course covers installing, configuring, managing, and supporting a network infrastructure. (Non-vendor specific course.)
Prerequisite(s): ITNW 1354 or department chair approval
Course Type: Technical

ITNW 1354  Implementing and Supporting Servers  3 Credits  (2 Lec, 2 Lab)
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.
Prerequisite(s): ITSC 1305 or department chair approval
Course Type: Technical

ITNW 2352  Administering SQL Server  3 Credits  (2 Lec, 2 Lab)
This is a skills development course in the installation, configuration, administration, and troubleshooting of SQL Servers client/server database management system version.
Prerequisite(s): ITSW 2337 and ITNW 1325 or department chair approval
Course Type: Technical

ITNW 2354  Internet/Intranet Server  3 Credits  (2 Lec, 2 Lab)
This course covers advanced concepts in the designing, installing, and administration of an Internet/Intranet server.
Prerequisite(s): ITNW 1325 or ITCC 1314 or department chair approval
Course Type: Technical
COMPUTER INFO TECH (ITSC)

ITSC 1305 Introduction to PC Operating Systems 3 Credits (2 Lec, 2 Lab)
This course is an introduction to personal computer operating systems including installation, configuration, file management, memory and storage management, control of peripheral devices, and use of utilities.
Course Type: Technical

ITSC 1307 UNIX Operating System I 3 Credits (2 Lec, 2 Lab)
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(s): ITSC 1307 or department chair approval
Course Type: Technical

ITSC 1309 Integrated Software Applications I 3 Credits (2 Lec, 2 Lab)
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. Student will only receive 3 semester credit hours for either ITSC 1309 or BCIS 1309.
Course Type: Technical

ITSC 1319 Internet/Web Page Development 3 Credits (2 Lec, 2 Lab)
This course includes instruction in the use of Internet concepts and the introduction to web page design and website development.
Course Type: Technical

ITSC 1321 Intermediate PC Operating Systems 3 Credits (2 Lec, 2 Lab)
The course covers custom operating system installation, configuration, and troubleshooting. Topics include installation and configuration, file management, memory, storage and peripheral devices.
Prerequisite(s): ITSC 1325 or department chair approval
Course Type: Technical

ITSC 1325 Personal Computer Hardware 3 Credits (2 Lec, 2 Lab)
This course is a study of current personal computer hardware, including personal computer assembly, upgrading, setup and configuration, and troubleshooting.
Course Type: Technical

ITSC 2321 Integrated Software Applications II 3 Credits (2 Lec, 2 Lab)
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(s): ITSC 1309 or department chair approval
Course Type: Technical

ITSC 2323 Unix Operating System II 3 Credits
Course Type: Technical

ITSC 2336 Unix Operating System II 3 Credits
Course Type: Technical
**COMPUTER INFO TECH (ITSE)**

**ITSE 1307 Introduction to C++ Programming 3 Credits (2 Lec, 2 Lab)**
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.

Course Type: Technical

**ITSE 1329 Programming Logic and Design 3 Credits (3 Lec, 1 Lab)**
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.

Course Type: Technical

**ITSE 1331 Introduction to Visual BASIC Programming 3 Credits (2 Lec, 2 Lab)**
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.

Course Type: Technical

**ITSE 1333 Mobile Applications Development 3 Credits (2 Lec, 2 Lab)**
This course is an overview of different mobile platforms and their development environments.

Prerequisite(s): ITSC 1319 and ITSE 1359

Course Type: Technical

**ITSE 1345 Introduction to Oracle SQL 3 Credits (2 Lec, 2 Lab)**
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(s): IISW 1307 or department chair approval

Course Type: Technical

**ITSE 1356 Extensible Markup Language (XML) 3 Credits (2 Lec, 2 Lab)**
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(s): ITSC 1319

Course Type: Technical

**ITSE 1359 Introduction to Scripting Languages 3 Credits (2 Lec, 2 Lab)**
This course is an introduction to scripting languages including basic data types, control structures, regular expressions, input/output, and textual analysis.

Prerequisite(s): ITSC 1319

Course Type: Technical

**ITSE 2309 Database Programming 3 Credits (2 Lec, 2 Lab)**
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(s): IISW 2337 or department chair approval

Course Type: Technical

**ITSE 2313 Web Authoring 3 Credits (2 Lec, 2 Lab)**
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(s): ITSC 1319 or department chair approval

Course Type: Technical

**ITSE 2317 Java Programming 3 Credits (2 Lec, 2 Lab)**
This course is an introduction to Java programming for applications and web applets.

Prerequisite(s): ITSE 1307 or department chair approval

Course Type: Technical

**ITSE 2331 Advanced C++ Programming 3 Credits (2 Lec, 2 Lab)**
This course covers C++ programming techniques including file access, abstract data structures, class inheritance, and other advanced techniques.

Prerequisite(s): ITSE 1307 or department chair approval

Course Type: Technical
COMPUTER INFO TECH (ITSW)

ITSW 1307  Introduction to Database  3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical

ITSW 2334  Advanced Spreadsheets  3 Credits  (2 Lec, 2 Lab)
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(s): ITSC 1309 or department chair approval
Course Type: Technical

ITSW 2336  UNIX Operating Systems II  3 Credits
Course Type: Technical

ITSW 2337  Advanced Database  3 Credits  (2 Lec, 2 Lab)
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(s): ITSW 1307 or department chair approval
Course Type: Technical
COMPUTER INFO TECH (ITSY)

ITSY 1342  Information Technology Security  3 Credits  (2 Lec, 2 Lab)
Instruction is provided in security for network hardware, software, and data including physical security; backup procedures; relevant tools; encryption; and protection from viruses.
Prerequisite(s): ITNW 1325 or ITCC 1314 or department chair approval
Course Type: Technical

ITSY 2300  Operating System Security  3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical

ITSY 2301  Firewalls and Network Security  3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical

ITSY 2341  Security Management Practices  3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical

ITSY 2342  Incident Response and Handling  3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical

ITSY 2343  Computer System Forensics  3 Credits  (2 Lec, 2 Lab)
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.
Prerequisite(s): ITSY 1342 and ITSY 2301 or department chair approval
Course Type: Technical

ITSY 2359  Security Assessment and Auditing  3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical

San Jacinto College 2019-2020
**COMPUTER SCIENCE (COSC)**

**COSC 1336  Programming Fundamentals I  3 Credits  (2 Lec, 2 Lab)**
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(s): Reading level 7
Course Type: Academic

**COSC 1337  Programming Fundamentals II  3 Credits  (2 Lec, 2 Lab)**
This course focuses on the object-oriented programming paradigm, emphasizing the definition 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.)
Course Type: Academic

**COSC 2325  Computer Organization  3 Credits  (2 Lec, 2 Lab)**
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(s): COSC 1336 and COSC 1337 or department chair approval
Course Type: Academic

**COSC 2336  Programming Fundamentals III  3 Credits  (2 Lec, 2 Lab)**
This course explores further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), searching, sorting, recursion, and algorithmic analysis. Programs will be implemented in an appropriate object oriented language. (This course is included in the Field of Study Curriculum for Computer Science.)
Prerequisite(s): COSC 1337 or department chair approval
Course Type: Academic
CONSTRUCTION TECHNOLOGY (CNBT)

CNBT 1210 Basic Construction Safety 2 Credits (2 Lec, 0 Lab)
This course provides an introduction to basic job site construction safety in residential, commercial, and industrial construction. This course is equivalent to courses by the Occupational Safety and Health Administration of thirty (30) hours of training.
Course Type: Technical

CNBT 1311 Construction Methods & Materials I 3 Credits (3 Lec, 0 Lab)
This course provides an introduction to construction materials and methods and their applications including an introduction to green materials and methods.
Course Type: Technical

CNBT 1315 Field Engineering I 3 Credits (2 Lec, 2 Lab)
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.
Course Type: Technical

CNBT 1442 Building Codes and Inspections 4 Credits (4 Lec, 0 Lab)
This course is a study of building codes, standards applicable to building construction, and inspection processes.
Course Type: Technical

CNBT 1446 Construction Estimating I 4 Credits (3 Lec, 3 Lab)
This course is a study of fundamentals of estimating materials and labor costs in construction.
Course Type: Technical

CNBT 2310 Commercial/Industrial Blueprint Reading 3 Credits (2 Lec, 4 Lab)
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.
Course Type: Technical

CNBT 2315 Construction Specifications and Contracts 3 Credits (3 Lec, 0 Lab)
This course is a study of the legal aspects of written construction documents.
Course Type: Technical

CNBT 2342 Construction Management I 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

CNBT 2344 Construction Management II 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

CNBT 2366 Practicum-Construction Technology 3 Credits (0 Lec, 21 Lab)
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(s): CNBT 2310 or department chair approval
Course Type: Technical

CNBT 2435 Computer-Aided Construction Scheduling 4 Credits (3 Lec, 3 Lab)
This course provides a study of advanced construction scheduling utilizing computer scheduling software to perform various scheduling procedures.
Course Type: Technical

CNBT 2440 Mechanical, Plumbing and Electrical Systems in Construction II 4 Credits (3 Lec, 2 Lab)
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.
Course Type: Technical
### COSMETOLOGY (CSME)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Course Type</th>
<th>Contact Hours per Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSME 1248</td>
<td>Principles of Skin Care</td>
<td>2</td>
<td>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</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1302</td>
<td>Applications of Facial and Skin Care Technology</td>
<td>3</td>
<td>This is an introduction to the application of facial and skin care technology. Includes identifying and utilizing professional skin care products. Co-requisite(s): CSME 1421 and 1520, or department chair approval. 80 contact hours per semester.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1308</td>
<td>Principles of Eyelash Extensions</td>
<td>3</td>
<td>3 Credits (1 Lec, 4 Lab) This course provides the student with the practical skills necessary to safely and effectively apply eyelash extensions. Co-requisite(s): CSME 1409 and 1507 or department chair approval. 80 contact hours per semester.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1310</td>
<td>Introduction to Haircutting and Related Theory</td>
<td>3</td>
<td>3 Credits (1 Lec, 6 Lab) 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.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1330</td>
<td>Orientation to Nail Technology</td>
<td>3</td>
<td>3 Credits (1 Lec, 8 Lab) 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.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1354</td>
<td>Artistry of Hair Design I</td>
<td>3</td>
<td>3 Credits (1 Lec, 6 Lab) 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.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1355</td>
<td>Artistry of Hair Design II</td>
<td>3</td>
<td>3 Credits (1 Lec, 6 Lab) 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.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1409</td>
<td>Application of Eyelash Extensions</td>
<td>4</td>
<td>4 Credits (2 Lec, 4 Lab) This course provides the student with the skills necessary to perform client services using current techniques and business practices. Co-requisite(s): CSME 1308 and 1507 or department chair approval. 96 contact hours per semester.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1421</td>
<td>Principles of Facial and Skin Care Technology</td>
<td>4</td>
<td>4 Credits (2 Lec, 6 Lab) 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.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1435</td>
<td>Orientation to the Instruction of Cosmetology</td>
<td>4</td>
<td>4 Credits (2 Lec, 5 Lab) This course is an overview of skills and knowledge necessary for the instruction of cosmetology students. Co-requisite(s): 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.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1457</td>
<td>Applications of Hair-Weaving and Braiding</td>
<td>4</td>
<td>4 Credits (2 Lec, 7 Lab) This course is an emphasis on the application of hair weaving and braiding techniques and preparation for the State Licensing Agency examination. Co-requisite(s): CSME 1552. 144 contact hours</td>
<td>Technical</td>
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</tr>
<tr>
<td>CSME 1501</td>
<td>Orientation to Cosmetology</td>
<td>5</td>
<td>5 Credits (3 Lec, 8 Lab) 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.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1505</td>
<td>Fundamentals of Cosmetology</td>
<td>5</td>
<td>5 Credits (3 Lec, 4 Lab) 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.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1507</td>
<td>Orientation to Eyelash Extensions</td>
<td>5</td>
<td>5 Credits (3 Lec, 6 Lab) This course is an introduction of the theory and practice 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-requisite(s): CSME 1308 and 1409 or department chair approval. 144 contact hours per semester.</td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td>CSME 1520</td>
<td>Orientation to Facial Specialist</td>
<td>5</td>
<td>5 Credits (3 Lec, 8 Lab) This course is an overview of the skills and knowledge necessary for the field of facials and skin care. Co-requisite(s): CSME 1421, CSME 1302 or department chair approval. 176 contact hours per semester.</td>
<td>Technical</td>
<td></td>
</tr>
</tbody>
</table>
CSME 1531 Principles of Nail Technology I 5 Credits (3 Lec, 8 Lab)
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.
Course Type: Technical

CSME 1534 Cosmetology Instructor I 5 Credits (3 Lec, 6 Lab)
This course covers the fundamentals of instructing cosmetology students.
Co-requisite(s): 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.
Course Type: Technical

CSME 1541 Principles of Nail Technology II 5 Credits (3 Lec, 8 Lab)
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.
Course Type: Technical

CSME 1545 Principles of Facial and Skin Care Technology II 5 Credits (3 Lec, 8 Lab)
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-requisite(s): CSME 1520, CSME 1421, CSME 1302, CSME 2431 and CSME 2333 or department chair approval. 176 contact hours per semester.
Course Type: Technical

CSME 1552 Orientation to Hair-Weaving and Braiding 5 Credits (3 Lec, 7 Lab)
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(s): Reading level 4.
Co-requisite(s): CSME 1457. 160 contact hours per semester.
Course Type: Technical

CSME 1553 Chemical Reformation and Related Theory 5 Credits (3 Lec, 8 Lab)
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
Course Type: Technical

CSME 2251 Preparation for the State Licensing Practical Examination 2 Credits (1 Lec, 4 Lab)
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.
Course Type: Technical

CSME 2310 Advanced Haircutting and Related Theory 3 Credits (1 Lec, 6 Lab)
This course focuses on advanced concepts and practice of haircutting. Topics include haircuts utilizing scissors, razors, and/or clippers. Prerequisite(s): CSME 1310 and courses taken in level sequence order or department chair approval. 112 contact hours per semester.
Course Type: Technical

CSME 2333 Application of Facial and Skin Care Technology II 3 Credits (2 Lec, 3 Lab)
This course is a continuation of the Application of Facial and Skin Care Technology I. Preparation for the state licensing Facial Specialty Exam. Co-requisite(s): 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.
Course Type: Technical

CSME 2337 Advanced Cosmetology Techniques 3 Credits (1 Lec, 4 Lab)
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.
Course Type: Technical

CSME 2343 Salon Development 3 Credits (1 Lec, 5 Lab)
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.
Course Type: Technical

CSME 2350 Preparation for the State Licensing Written Examination 3 Credits (2 Lec, 4 Lab)
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.
Course Type: Technical

CSME 2414 Cosmetology Instructor II 4 Credits (2 Lec, 5 Lab)
This course is a continuation of the fundamentals of instructing cosmetology students. Prerequisite(s): CSME 1435 and 1534.
Co-requisite(s): CSME 2549 or department chair approval. 112 contact hours per semester.
Course Type: Technical
CSME 2430  Nail Enhancement  4 Credits  (3 Lec, 4 Lab)  
This is a course in the theory, application, and related technology of nail enhancements. 112 contact hours
Course Type: Technical

CSME 2431  Principles of Facial and Skin Care Technology III  4 Credits  (2 Lec, 6 Lab)  
This course focuses on advanced concepts and principles of skin care and other related technologies.
Prerequisite(s): CSME 1520, CSME 1421, and CSME 1302.
Co-requisite(s): CSME 1545, CSME 2333 or department chair approval.
128 contact hours per semester.
Course Type: Technical

CSME 2445  Instructional Theory and Clinic Operation  4 Credits  (2 Lec, 5 Lab)  
This course is an overview of the objectives required by the Texas Department of Licensing and Regulation Instructor Examination.
Prerequisite(s): CSME 1435 and 1534.
Co-requisite(s): CSME 2544 or department chair approval. 112 contact hours per semester.
Course Type: Technical

CSME 2501  Principles of Hair Coloring and Related Theory  5 Credits  (3 Lec, 8 Lab)  
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.
Course Type: Technical

CSME 2539  Advanced Hair Design  5 Credits  (2 Lec, 9 Lab)  
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.
Course Type: Technical

CSME 2544  Cosmetology Instructor IV  5 Credits  (3 Lec, 6 Lab)  
This course is an advanced concepts of instruction in a Cosmetology program. Topics include demonstration, development and implementation of advanced evaluation techniques.
Prerequisite(s): CSME 1435 and 1534.
Co-requisite(s): CSME 2445 or department chair approval. 144 contact hours per semester.
Course Type: Technical

CSME 2549  Cosmetology Instructor III  5 Credits  (3 Lec, 6 Lab)  
This course is a presentation of lesson plan assignments and evaluation techniques.
Prerequisite(s): CSME 1435 and 1534.
Co-requisite(s): CSME 2414 or department chair approval. 144 contact hours per semester.
Course Type: Technical
CRIMINAL JUSTICE (CJCR)

CJCR 1304 Probation and Parole 3 Credits  (3 Lec, 0 Lab)
This is a survey of the structure, organization, and operation of probation and parole services. Emphasis on applicable state statutes and administrative guidelines.
Prerequisite(s): Reading level 4
Course Type: Technical

CJCR 1307 Correctional Systems and Practices 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

CJCR 2324 Community Resources in Corrections 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical
CRIMINAL JUSTICE (CJLE)

CJLE 1327 Interviewing and Report Writing for Criminal Justice Professions 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

CJLE 1333 Traffic Law and Investigation 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical
Criminal Justice (CJSA)

CJSA 1308 Criminalistics I 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

CJSA 1312 Crime in America 3 Credits (3 Lec, 0 Lab)
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.)
Course Type: Technical

CJSA 1313 Court Systems and Practices 3 Credits (3 Lec, 0 Lab)
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.)
Course Type: Technical

CJSA 1317 Juvenile Justice System 3 Credits (3 Lec, 0 Lab)
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.)
Course Type: Technical

CJSA 1322 Introduction to Criminal Justice 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

CJSA 1327 Fundamentals of Criminal Law 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

CJSA 1342 Criminal Investigation 3 Credits (3 Lec, 0 Lab)
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.)
Course Type: Technical

CJSA 1348 Ethics in Criminal Justice 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

CJSA 1351 Use of Force 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

CJSA 1359 Police Systems and Practices 3 Credits (3 Lec, 0 Lab)
This course explores the profession of police officer. 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.)
Course Type: Technical

CJSA 1374 Crime Prevention 3 Credits (3 Lec, 0 Lab)
This course is a study of the prevention of crime through cooperative ventures between law enforcement agencies and the communities they serve. Emphasis is on the prevention of crimes against property both in businesses and in the home. It includes history of crime prevention, physical security measures, special problems in loss control, and security survey procedures.
Prerequisite(s): Reading level 4
Course Type: Technical

CJSA 2300 Legal Aspects of Law Enforcement 3 Credits (3 Lec, 0 Lab)
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.)
Course Type: Technical

CJSA 2302 Police Management, Supervision, and Related Topics 3 Credits (3 Lec, 0 Lab)
This course covers techniques and theories regarding dealing with people, their performance and problems. Topics include basic supervision, leadership, time management, first-line supervision, and management by objectives.
Prerequisite(s): Reading level 4
Course Type: Technical

CJSA 2364 Practicum (or Field Experience) - Criminal Justice/Safety Studies 3 Credits (0 Lec, 21 Lab)
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(s): 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.)
Course Type: Technical
CRIMINAL JUSTICE (CRIJ)

CRIJ 1301 Introduction to Criminal Justice  3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Academic

CRIJ 1306 Court Systems and Practices  3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Academic

CRIJ 1307 Crime in America  3 Credits  (3 Lec, 0 Lab)
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(s): Reading level 4. Credit will not be given for both CRIJ 1307 and CJSA 1312.
Course Type: Academic

CRIJ 1310 Fundamentals of Criminal Law  3 Credits  (3 Lec, 0 Lab)
This course is the study of criminal law including application of definitions, statutory elements, defenses and penalties using Texas statutes, the Model Penal Code, and case law. The course also analyzes the philosophical and historical development of criminal law and criminal culpability. Credit will not be given for both CRIJ 1310 and CJSA 1327.
Course Type: Academic

CRIJ 1313 Juvenile Justice System  3 Credits  (3 Lec, 0 Lab)
This course is a study of the juvenile justice process. Topics include specialized juvenile law, role of the juvenile courts, role of police agencies, role of correctional agencies, and theories concerning delinquency. Credit will not be given for both CRIJ 1313 and CJSA 1317.
Course Type: Academic

CRIJ 2301 Community Resources in Corrections  3 Credits  (3 Lec, 0 Lab)
This 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 CRIJ 2301 and CJCR 2324.
Course Type: Academic

CRIJ 2313 Correctional Systems and Practices  3 Credits  (3 Lec, 0 Lab)
This course is a survey of institutional and non-institutional corrections. Emphasis will be placed on the organization and operation of correctional systems; treatment and rehabilitation; populations served; Constitutional issues; and current and future issues. Credit will not be given for both CRIJ 2313 and CJCR 1307.
Course Type: Academic
CULINARY ARTS (FDST)

FDST 1305  Food Svc Equipment & Planning  3 Credits
Course Type: Technical
**CULINARY ARTS (IFWA)**

**IFWA 1205  Food Service Equipment and Planning  2 Credits  (2 Lec, 1 Lab)**
This is a study of various types of food service equipment and the planning of equipment layout for product flow and efficient operation.
Course Type: Technical

**IFWA 1305  Food Service Equipment and Planning  3 Credits  (3 Lec, 0 Lab)**
This course is a study of various types of food service equipment and the planning of equipment layout for product flow and efficient operation.
Course Type: Technical

**IFWA 1318  Nutrition for the Food Service Professional  3 Credits  (3 Lec, 0 Lab)**
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.
Course Type: Technical

**IFWA 1319  Meat Identifying and Processing  3 Credits  (1 Lec, 4 Lab)**
This course is a study of the identification and characteristics of wholesale and retail cuts of meat; hotel, restaurant, and institutional cuts of meat; U.S.D.A. quality grades; quality control; and the Federal Meat Inspection Regulation. Pre-requisites: CHEF 1401, CHEF 1205
Course Type: Technical

**IFWA 2341  Specialized Food Preparation  3 Credits  (2 Lec, 4 Lab)**
This is a study of ethnic/regional cooking with actual preparation of local favorite dishes and common international favorites.
Prerequisite(s): CHEF 1401
Course Type: Technical

**IFWA 2446  Quantity Procedures  4 Credits  (2 Lec, 8 Lab)**
This course includes the exploration of the theory and application of quantity procedures for the operation of commercial, institutional, and industrial food services. Emphasis on quantity cookery and distribution.
Co-requisite(s): CHEF 1205
Course Type: Technical
PSTR 1301 Fundamentals of Baking  3 Credits  (2 Lec, 4 Lab)
This is a course in fundamentals of baking including dough, quick breads, pies, cakes, cookies and tarts. Instruction in flours, fillings and ingredients. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the evaluation of baked products.
Co-requisite(s): CHEF 1205
Course Type: Technical

PSTR 1306 Cake Decorating I  3 Credits  (2 Lec, 4 Lab)
This is an introduction to skills, concepts and techniques of cake decorating.
Co-requisite(s): PSTR 1301 and CHEF 1205
Course Type: Technical

PSTR 1342 Quantity Bakeshop Production  3 Credits  (1 Lec, 5 Lab)
This course is a study of advanced baking techniques to include volume production of a variety of breads and desserts.
Co-requisite(s): PSTR 1301 and CHEF 1205
Course Type: Technical

PSTR 1343 Bakery Operations and Management  3 Credits  (2 Lec, 2 Lab)
This course is an introduction to management, marketing, supervision, and sanitation principles required in retail bakery operations with an emphasis on cost control, pricing, computer usage, and personnel issues.
Pre-requisites: CHEF 1205, PSTR 1301
Course Type: Technical

PSTR 2301 Chocolates and Confections  3 Credits  (2 Lec, 4 Lab)
This course covers production and decoration of traditional truffles, marzipan, molded and hand-dipped chocolates, caramels, nougats, and pate de fruit.
Prerequisite(s): CHEF 1205, PSTR 1301, PSTR 1306, PSTR 1342;
Co-requisite(s): PSTR 2307
Course Type: Technical

PSTR 2307 Cake Decorating II  3 Credits  (2 Lec, 4 Lab)
This is a course in decoration of specialized and seasonal products.
Prerequisite(s): CHEF 1205, PSTR 1301, PSTR 1302, PSTR 1306;
Co-requisite(s): PSTR 2301
Course Type: Technical

PSTR 2350 Wedding Cakes  3 Credits  (2 Lec, 4 Lab)
This course introduces the skills, concepts and techniques for preparing wedding cakes. Includes marzipan, molding chocolate-rolled fondant, chocolate garnish, flower making and royal icing piping work.
Prerequisite(s): CHEF 1401, PSTR 1301 and PSTR 2431
Course Type: Technical

PSTR 2365 Practicum - Baking and Pastry  3 Credits  (0 Lec, 21 Lab)
This is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. This course offered in conjunction with the Associate of Applied Science Restaurant Management degree. Departmental Approval required.
Course Type: Technical

PSTR 2431 Advanced Pastry Shop  4 Credits  (2 Lec, 4 Lab)
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(s): PSTR 1301, CHEF 1205
Course Type: Technical

PSTR 2470 Healthy Baking and Pastries  4 Credits  (3 Lec, 3 Lab)
This course covers the principles of a healthy diet as it relates to baking and pastry goods and production of healthy alternatives to traditional baked and pastry goods.
Prerequisite(s): PSTR 1301
Course Type: Technical
CULINARY ARTS (RSTO)

RSTO 1301 Beverage Management 3 Credits (3 Lec, 0 Lab)
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, service, and the selection of wines to enhance foods.
Course Type: Technical

RSTO 1304 Dining Room Service 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

RSTO 1313 Hospitality Supervision 3 Credits (3 Lec, 0 Lab)
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. Emphasis on leadership development.
Course Type: Technical

RSTO 1325 Purchasing for Hospitality Operations 3 Credits (3 Lec, 0 Lab)
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 comparisons, proper receiving procedures, storage management, and issue procedures. Emphasis on product cost analysis, yields, pricing formulas, controls, and record keeping at each stage of the purchasing cycle.
Course Type: Technical

RSTO 2301 Principles of Food and Beverage Control 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

RSTO 2307 Catering 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

RSTO 2365 Practicum (or Field Experience) - Restaurant, Culinary, and Catering Management/Manager 3 Credits (0 Lec, 21 Lab)
This course offers practical general workplace training supported by an individualized learning plan developed by the employer, the College, and student.
Course Type: Technical

RSTO 2405 Management of Food Production and Service 4 Credits (3 Lec, 3 Lab)
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. Includes laboratory experiences in quantity food preparation and service.
Course Type: Technical

RSTO 2431 Food Service Management 4 Credits (2 Lec, 8 Lab)
This course covers mastery of actual management experiences in supervision, training, planning, and control of a variety of food service operation formats may include cafeteria, table service, meetings, banquets, and catered events. Students may not receive credit for both RSTO 2431 and RSTO 2405.
Co-requisite(s): CHEF 1205
Course Type: Technical
CULINARY ARTS/CHEF TR (CHEF)

**CHEF 1205 Sanitation and Safety 2 Credits (2 Lec, 0 Lab)**
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.
Course Type: Technical

**CHEF 1310 Garde Manger 3 Credits (1 Lec, 4 Lab)**
This is a study of cold foods and garnishes. Emphasis on design, techniques, and display of fine foods.
Prerequisite(s): CHEF 1401 or PSTR 1301 and
Co-requisite(s): CHEF 1205
Course Type: Technical

**CHEF 1313 Food Service Operation/Systems 3 Credits (3 Lec, 0 Lab)**
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.
Course Type: Technical

**CHEF 1314 A La Carte Cooking 3 Credits (2 Lec, 4 Lab)**
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(s): CHEF 1205
Course Type: Technical

**CHEF 1401 Basic Food Preparation 4 Credits (3 Lec, 3 Lab)**
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.
Co-requisite(s): CHEF 1205
Course Type: Technical

**CHEF 1402 Principles of Healthy Cuisine 4 Credits (3 Lec, 3 Lab)**
This course is an introduction to the principles of planning, preparation, and presentation of nutritionally balanced meals. Alternative methods and ingredients will be used to achieve a healthier cooking style.
Prerequisite(s): CHEF 1401
Course Type: Technical

**CHEF 1410 Garde Manger 4 Credits (2 Lec, 4 Lab)**
This is a study of cold foods and garnishes. Emphasis on design, techniques, and display of fine foods.
Prerequisite(s): CHEF 1401 or PSTR 1301 and
Co-requisite(s): CHEF 1205
Course Type: Technical

**CHEF 1445 International Cuisine 4 Credits (2 Lec, 4 Lab)**
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. Pre-requisite: CHEF 1401,
Co-requisite(s): CHEF 1205
Course Type: Technical

**CHEF 2302 Saucier 3 Credits (2 Lec, 4 Lab)**
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(s): CHEF 1401
Course Type: Technical

**CHEF 2365 Practicum (or Field Experience) - Culinary Arts/Chef Training 3 Credits (0 Lec, 21 Lab)**
This course offers practical general workplace training supported by an individualized learning plan developed by the employer, the College and student.
Prerequisite(s): This course offered in conjunction with the Associate of Applied Science Culinary Arts-Chef Training degree. Departmental Approval required.
Course Type: Technical
DANCE (DANC)

DANC 1112 Dance Practicum  1 Credit  (0 Lec, 3 Lab)
This course is a practicum in dance as a performance art. It includes exploration of dance as an art form through participation in improvisational movement study and improvisational contact work/partnering.
Course Type: Academic

DANC 1151 Freshman Dance Performance  1 Credit  (0 Lec, 4 Lab)
This course offers instruction in dance performance through experiential projects at the freshman level. May be repeated for credit once.
Co-requisite(s): concurrent enrollment in a technique course or department chair approval required.
Course Type: Academic

DANC 1201 Dance Composition - Improvisation  2 Credits  (1 Lec, 3 Lab)
This course in improvisation will investigate spontaneous problem solving as a means of generating movement for dance composition. Students will be called upon to explore and respond to various forms of stimuli in a safe and supportive learning environment within solo and group work.
Course Type: Academic

DANC 1241 Beginning Ballet  2 Credits  (1 Lec, 3 Lab)
This course offers instruction in the fundamental techniques and concepts associated with ballet. May be repeated for credit once.
Course Type: Academic

DANC 1245 Beginning Modern Dance  2 Credits  (1 Lec, 3 Lab)
This course offers instruction in the fundamental techniques and concepts associated with the concert form of modern dance. May be repeated for credit once.
Course Type: Academic

DANC 1247 Beginning Jazz Dance  2 Credits  (1 Lec, 3 Lab)
This course offers instruction in the fundamental techniques and concepts associated with jazz dance. May be repeated for credit once.
Course Type: Academic

DANC 1249 Beginning Tap Dance  1 Credit  (0 Lec, 3 Lab)
This course offers instruction in tap dance technique. May be repeated for credit once.
Course Type: Academic

DANC 1301 Dance Composition - Choreography  3 Credits  (2 Lec, 2 Lab)
This course is an examination of the principles of movement generation, phrasing, choreographic structure, and manipulation. Integration of choreographic principles will foster the growth of personal artistic style.
Prerequisite(s): DANC 1201 Dance Composition-Improvisation
Course Type: Academic

DANC 1305 World Dance  3 Credits  (2 Lec, 2 Lab)
This course offers a survey of dances from different cultures, their histories, and their influences on contemporary dance and society. Cultural origins, significance, motivations and techniques will be explored experientially.
Course Type: Academic

DANC 1315 Sophomore Dance Performance  1 Credit  (0 Lec, 4 Lab)
This course offers instruction in dance performance through experiential projects at the sophomore level. May be repeated for credit once.
Course Type: Academic

DANC 2241 Intermediate Ballet  2 Credits  (1 Lec, 3 Lab)
This course offers instruction in the intermediate techniques and concepts associated with ballet. May be repeated for credit once.
Course Type: Academic

DANC 2245 Intermediate Modern Dance  2 Credits  (1 Lec, 3 Lab)
This course offers instruction in the intermediate techniques and concepts associated with the concert form of modern dance. May be repeated for credit once.
Course Type: Academic

DANC 2247 Intermediate Jazz Dance  2 Credits  (1 Lec, 3 Lab)
This course offers instruction in the intermediate techniques and concepts associated with jazz dance. May be repeated for credit once.
Course Type: Academic

DANC 2303 Dance Appreciation  3 Credits  (3 Lec, 0 Lab)
This course offers a general survey of dance forms designed to create an appreciation of the vocabulary, techniques, and purposes of the creative process. This course includes critical interpretation and evaluations of choreographic works and dance forms within cultural and historical contexts.
Course Type: Academic

DANC 2389 Academic Cooperative  3 Credits  (1 Lec, 8 Lab)
This course 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 dance.
Course Type: Academic
## DIESEL TECHNOLOGY (DEMR)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>DEMR 1229</td>
<td>Preventative Maintenance</td>
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<td>DEMR 1301</td>
<td>Shop Safety and Procedures</td>
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<td>(3 Lec, 0 Lab)</td>
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<td>DEMR 1306</td>
<td>Diesel Engine I</td>
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<td>(2 Lec, 4 Lab)</td>
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<td>DEMR 1317</td>
<td>Basic Brake Systems</td>
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<td>DEMR 1405</td>
<td>Basic Electrical Systems</td>
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<td>Diesel Engine Testing and Repair I</td>
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<td>Fuel Systems</td>
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<td>Power Train I</td>
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<td>Heating, Ventilation, and Air Conditioning (HVAC)</td>
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<td>DEMR 2432</td>
<td>Electronic Controls</td>
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**Course Type:** Technical
DRAMA (DRAM)

DRAM 1120 Theatre Practicum I 1 Credit  (0 Lec, 4 Lab)
Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Course may be taken a maximum of four times for credit. This course is open to all students interested in the theater. Credit is earned for acting, technical work, or other participation.
Course Type: Academic

DRAM 1121 Theatre Practicum II 1 Credit  (0 Lec, 4 Lab)
Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. This course is open to all students interested in the theater. Credit is earned for acting, technical work, or other participation.
Course Type: Academic

DRAM 1310 Introduction to Theater 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Academic

DRAM 1322 Stage Movement 3 Credits  (3 Lec, 0 Lab)
This course covers principles, practices, and exercises in body techniques and stage movement; emphasis on character movement and body control.
Course Type: Academic

DRAM 1330 Stagecraft I 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Academic

DRAM 1341 Stage Makeup 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Academic

DRAM 1342 Introduction to Costuming 3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Academic

DRAM 1351 Acting I 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Academic

DRAM 1352 Acting II 3 Credits  (3 Lec, 0 Lab)
This is a continuation and consolidation of the gains made in DRAM 1351. Rehearsal will be scheduled as required.
Course Type: Academic

DRAM 2120 Theatre Practicum III 1 Credit  (0 Lec, 4 Lab)
Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. This course is open to all students interested in theater. Credit is earned for acting, technical work, or other participation.
Course Type: Academic

DRAM 2121 Theatre Practicum IV 1 Credit  (0 Lec, 4 Lab)
Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. This course is open to all students interested in the theater. Credit is earned for acting, technical work, or other participation.
Course Type: Academic

DRAM 2331 Stagecraft II 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Academic

DRAM 2336 Voice for the Theatre 3 Credits  (3 Lec, 0 Lab)
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(s): Reading level 6
Course Type: Academic

DRAM 2351 Acting III 3 Credits  (3 Lec, 2 Lab)
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.
Course Type: Academic

DRAM 2366 Introduction to Cinema: Film Appreciation I 3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Academic
**ECONOMICS (ECON)**

**ECON 1301  Introduction to Economics  3 Credits  (3 Lec, 0 Lab)**
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.
Prerequisite(s): Reading level 6, Writing level 6 and Math level 6
Course Type: Academic

**ECON 2301  Principles of Macroeconomics  3 Credits  (3 Lec, 0 Lab)**
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.
Prerequisite(s): Reading level 7, Writing level 7 and Math level 8
Course Type: Academic

**ECON 2302  Principles of Microeconomics  3 Credits  (3 Lec, 0 Lab)**
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.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8
Course Type: Academic
EDUCATION (EDUC)

EDUC 1200 Pathways for Learning 2 Credits (2 Lec, 0 Lab)
This course is a study of research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8
Course Type: Academic

EDUC 1300 Learning Framework 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7
Course Type: Academic

EDUC 1301 Introduction to the Teaching Profession 3 Credits (3 Lec, 1 Lab)
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.
Prerequisite(s): Reading level 7 and Writing level 7
Course Type: Academic
ELECTRICAL TECHNOLOGY (ELPT)

ELPT 1215 Electrical Calculations I 2 Credits (2 Lec, 0 Lab)
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.
Course Type: Technical

ELPT 1311 Basic Electrical Theory 3 Credits (2 Lec, 2 Lab)
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.
Course Type: Technical

ELPT 1321 Introduction to Electrical Safety and Tools 3 Credits (2 Lec, 2 Lab)
This course is a study of electrical safety rules and regulations. It includes the selection, inspection, use, and maintenance of common tools for electricians.
Course Type: Technical

ELPT 1325 National Electric Code I 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

ELPT 1329 Residential Wiring 3 Credits (2 Lec, 4 Lab)
This is a study of wiring methods for single family and multi-family dwellings that includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures.
Course Type: Technical

ELPT 1341 Motor Control 3 Credits (2 Lec, 2 Lab)
This course covers operating principles of solid-state and conventional controls along with their practical applications. Topics for this course will include braking, jogging, plugging, safety interlocks, wiring, and schematic diagram interpretation.
Prerequisite(s): CETT 1302
Course Type: Technical

ELPT 1345 Commercial Wiring 3 Credits (2 Lec, 2 Lab)
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.
Course Type: Technical

ELPT 1351 Electrical Machines 3 Credits (2 Lec, 2 Lab)
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(s): CETT 1302 or ELPT 1311
Course Type: Technical

ELPT 1357 Industrial Wiring 3 Credits (2 Lec, 2 Lab)
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.
Course Type: Technical

ELPT 1349 Residential Wiring 4 Credits (3 Lec, 3 Lab)
This is a study of wiring methods for single family and multi-family dwellings that includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures.
Course Type: Technical

ELPT 1440 Master Electrician Exam Review I 4 Credits (4 Lec, 0 Lab)
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(s): ELPT 2325 or approval of department chair
Course Type: Technical

ELPT 1441 Motor Control 4 Credits (3 Lec, 3 Lab)
This is a 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(s): CETT 1302 or ELPT 1311 or department chair approval
Course Type: Technical

ELPT 1445 Commercial Wiring 4 Credits (2 Lec, 6 Lab)
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.
Course Type: Technical

ELPT 2215 Electrical Calculations II 2 Credits (2 Lec, 0 Lab)
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(s): ELPT 1215 or approval of department chair
Course Type: Technical
ELPT 2301 Journeyman Electrician Exam Review 3 Credits (3 Lec, 0 Lab)
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(s): ELPT 2325 or approval of department chair
Course Type: Technical

ELPT 2305 Transformers and Motors 3 Credits (3 Lec, 1 Lab)
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(s): CETT 1302 or ELPT 1311 or approval of the department chair
Course Type: Technical

ELPT 2319 Programmable Logic Controllers I 3 Credits (2 Lec, 2 Lab)
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.
Course Type: Technical

ELPT 2325 National Electrical Code II 3 Credits (3 Lec, 0 Lab)
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(s): ELPT 1325 or department chair approval
Course Type: Technical

ELPT 2337 Electrical Planning and Estimating 3 Credits (2 Lec, 2 Lab)
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(s): ELPT 2325 or approval of department chair
Course Type: Technical

ELPT 2339 Electrical Power Distribution 3 Credits (3 Lec, 1 Lab)
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.
Prerequisite(s): CETT 1302 or ELPT 1311, ELPT 2305
Course Type: Technical

ELPT 2343 Electrical System Design 3 Credits (3 Lec, 0 Lab)
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(s): ELPT 2325 or approval of department chair
Course Type: Technical

ELPT 2364 Practicum-Electrical and Power Transmission Installation/ Installer, General 3 Credits (0 Lec, 21 Lab)
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(s): Approval of department chair
Course Type: Technical

ELPT 2449 Industrial Automation 4 Credits (3 Lec, 3 Lab)
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(s): ELPT 1441
Course Type: Technical
ELECTRICAL TECHNOLOGY (ENER)

ENER 1240 Employee Success in Energy Industry  2 Credits  (2 Lec, 0 Lab)
This course is a study of successful employee characteristics and employer expectations in the energy industry. Topics include benefits, career management, e-communications, and personal financial management. It also addresses values, inclusion, and community/environmental roles.
Prerequisite(s): Reading level 6, Writing level 6, Math level 6

Course Type: Technical

ENER 1330 Basic Mechanical Skills for Energy  3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical
RBPT 2345 Onsite Power Generation and Renewable Energy 3 Credits
(2 Lec, 2 Lab)
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.
Course Type: Technical
ELECTRONICS TECHNOLOGY (CETT)

CETT 1302 Electricity Principles 3 Credits (2 Lec, 2 Lab)
This course covers principles of electricity including proper use of test equipment, A/C and D/C circuits, and component theory and operations.
Prerequisite(s): Reading level 6, Writing level 6, Math level 6
Course Type: Technical

CETT 1303 DC Circuits 3 Credits (2 Lec, 2 Lab)
This is a study of the fundamentals of direct current including Ohm's law, Kirchoff's laws, and circuit analysis techniques. Emphasis is on circuit analysis of resistive networks and DC measurements.
Course Type: Technical

CETT 1305 AC Circuits 3 Credits (2 Lec, 2 Lab)
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(s): CETT 1303 or department chair approval
Course Type: Technical

CETT 1325 Digital Fundamentals 3 Credits (2 Lec, 2 Lab)
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.
Course Type: Technical

CETT 1329 Solid State Devices 3 Credits (2 Lec, 2 Lab)
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.
Course Type: Technical

CETT 1345 Microprocessor 3 Credits (2 Lec, 2 Lab)
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(s): CETT 1325 or department chair approval
Course Type: Technical

CETT 1349 Digital Systems 3 Credits (2 Lec, 2 Lab)
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(s): CETT 1325 or department chair approval
Course Type: Technical

CETT 1357 Linear Integrated Circuits 3 Credits (2 Lec, 2 Lab)
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(s): CETT 1329 or department chair approval
Course Type: Technical

CETT 1409 DC-AC Circuits 4 Credits (2 Lec, 6 Lab)
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.
Course Type: Technical

CETT 2449 Research and Project Design 4 Credits (3 Lec, 3 Lab)
This course focuses on the principles of electrical/ electronics design, encompassing schematics wiring diagrams, materials lists, operating characteristics, completion schedules, and cost estimates.
Course Type: Technical
ELECTRONICS TECHNOLOGY (EECT)

EECT 1300 Technical Customer Service 3 Credits (3 Lec, 1 Lab)
This course covers general principles of customer service within a technical environment. Topics include internal/external customer relationships, time-management, best practices, and verbal and non-verbal communications skills.
Course Type: Technical

EECT 1307 Convergence Technologies 3 Credits (2 Lec, 2 Lab)
This course is a study of telecommunications convergence technologies including telephone, LAN, WAN, wireless, voice, video, and Internet protocol.
Prerequisite(s): Reading level 4
Course Type: Technical

EECT 1340 Telecommunications Transmission Media 3 Credits (2 Lec, 2 Lab)
This course introduces the fundamentals of telecommunications media, including installation, maintenance, and troubleshooting. Topics address media characteristics and connectorization.
Course Type: Technical

EECT 2337 Wireless Telephony Systems 3 Credits (2 Lec, 2 Lab)
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.
Prerequisite(s): ITCC 1301 or ITNW 1325
Course Type: Technical

EECT 2339 Communications Circuits 3 Credits (2 Lec, 2 Lab)
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(s): CETT 1357 or department chair approval
Course Type: Technical

EECT 2367 Practicum, (Field Experience) Electronic Technology/Technician 3 Credits (0 Lec, 21 Lab)
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(s): CPMT 1345 or department chair approval
Course Type: Technical

EECT 2433 Telephone Systems 4 Credits (4 Lec, 0 Lab)
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.
Course Type: Technical
ELECTRONICS TECHNOLOGY
(ELMT)

ELMT 1305 Basic Fluid Power 3 Credits (2 Lec, 2 Lab)
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(s): Reading level 4
Course Type: Technical

ELMT 2333 Industrial Electronics 3 Credits (2 Lec, 4 Lab)
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(s): CETT 1357 or department chair approval
Course Type: Technical

ELMT 2335 Certified Electronics Technician Training 3 Credits (2 Lec, 2 Lab)
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(s): Reading level 4
Course Type: Technical

ELMT 2337 Electronic Troubleshooting Service and Repair 3 Credits (2 Lec, 2 Lab)
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.
Course Type: Technical

ELMT 2341 Electromechanical Systems 3 Credits (2 Lec, 2 Lab)
This course covers application of electromechanical systems and emphasizes programmable control devices and solid state systems.
Prerequisite(s): Reading level 4
Course Type: Technical

ELMT 2453 Power Generation Troubleshooting 4 Credits (3 Lec, 3 Lab)
This course focuses on instruction in the different types of troubleshooting techniques, procedures, and methods used to solve power generation problems. Topics for this course will include application of data collection and analysis, cause-effect relationships, and reasoning.
Prerequisite(s): CETT 1302
Course Type: Technical
FCEL 1305  Fuel Cell and Alternative/Renewable Energy  3 Credits  (2 Lec, 2 Lab)
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-requisite(s): CETT 1303 and Reading level 4
Course Type: Technical
ELECTRONICS TECHNOLOGY (RBTC)

RBTC 1355 Sensors and Automation 3 Credits (2 Lec, 2 Lab)
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(s): Reading level 4

Course Type: Technical
EMERGENCY MEDICAL TECH (EMSP)

EMSP 1160 Clinical-Emergency Medical Technician 1 Credit (0 Lec, 6 Lab)
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. Orientation is required prior to the start of the course.
Co-requisite(s): EMSP 1501 and departmental approval.
Course Type: Technical

EMSP 1260 Clinical - Advanced Emergency Medical Technology 2 Credits (0 Lec, 12 Lab)
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.
Course Type: Technical

EMSP 1338 Introduction to Advanced Practice 3 Credits (2 Lec, 4 Lab)
This course covers fundamental elements associated with emergency medical services to include preparatory practices, pathophysiology, medication administration, and related topics.
Prerequisite(s): EMSP 1160, EMSP 1501, BIOL 2301 and BIOL 2101, and BIOL 2302 and BIOL 2102; or BIOL 2404 or departmental approval.
Co-requisite(s): EMSP 1355, EMSP 1356, and EMSP 1260. Reading level 7, Writing level 7 and Math level 8.
Course Type: Technical

EMSP 1355 Trauma Management 3 Credits (2 Lec, 4 Lab)
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.
Prerequisite(s): EMSP 1160, EMSP 1501, BIOL 2301 and BIOL 2101, and BIOL 2302 and BIOL 2102; or BIOL 2404 or departmental approval.
Co-requisite(s): EMSP 1338, EMSP 1356, and EMSP 1260. Reading level 7, Writing level 7, Math level 8.
Course Type: Technical

EMSP 1356 Patient Assessment and Airway Management 3 Credits (2 Lec, 4 Lab)
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.
Prerequisite(s): EMSP 1160, EMSP 1501, BIOL 2301 and BIOL 2101, and BIOL 2302 and BIOL 2102; or BIOL 2404 or departmental approval.
Co-requisite(s): EMSP 1338, EMSP 1355, and EMSP 1260. Reading level 7, Writing level 7, and Math level 8.
Course Type: Technical

EMSP 1501 Emergency Medical Technician 5 Credits (3 Lec, 8 Lab)
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.
Course Type: Technical

EMSP 2137 Emergency Procedures 1 Credit (0 Lec, 4 Lab)
This course uses the application of emergency medical procedures. This course was designed to be repeated multiple times to improve student proficiency.
Prerequisite(s): EMSP 1338, EMSP 1355, EMSP 1356, EMSP 1260, BIOL 2302, BIOL 2102 and departmental approval.
Course Type: Technical

EMSP 2162 Clinical - EMT Paramedic II 1 Credit (0 Lec, 5 Lab)
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-requisite(s): EMSP 2330, 2434 and departmental approval.
Course Type: Technical

EMSP 2168 Practicum/Field Experience - Paramedic 1 Credit (0 Lec, 10 Lab)
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(s): EMSP 2243 or departmental approval.
Course Type: Technical

EMSP 2205 EMS Operations 2 Credits (2 Lec, 0 Lab)
This course is a detailed study of the knowledge and skills necessary to reach competence to safely manage multi-casualty incidents and rescue situations; utilize air medical resources; identify hazardous materials and other specialized incidents. Curriculum is based on the National Emergency Medical Services Educational Standards. Practical field exercises will be performed, and some may require weekend participation. The student must meet the expected outcomes and terminal objectives of the class. Continuous enrollment may be required until these are met.
Prerequisite(s): Program Director/Departmental approval. Reading level 7, Writing level 7, and Math level 8.
Course Type: Technical

EMSP 2206 Emergency Pharmacology 2 Credits (1 Lec, 2 Lab)
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.
Prerequisite(s): EMSP 1338, EMSP 1355, EMSP 1356, EMSP 1260, BIOL 2301 and BIOL 2101, and BIOL 2302 and BIOL 2102; or BIOL 2404 or departmental approval. Reading level 7, Writing level 7, and Math level 8.
Course Type: Technical
EMSP 2237 Emergency Procedures 2 Credits  (0 Lec, 4 Lab)
This course uses the application of emergency medical procedures. This course was designed to be taken once and repeated if necessary to improve student proficiency.
Prerequisite(s): EMSP 1338, EMSP 1355, EMSP 1356, EMSP 1260, BIOL 2301 and BIOL 2101, and BIOL 2302 and BIOL 2102; or BIOL 2404, or departmental approval.
Course Type: Technical

EMSP 2243 Assessment Based Management 2 Credits  (0 Lec, 5 Lab)
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.
Prerequisite(s): EMSP 2434, EMSP 2330, or departmental approval.
Reading level 7, Writing level 7 and Math level 8.
Course Type: Technical

EMSP 2262 Clinical - EMT Paramedic II 2 Credits  (0 Lec, 10 Lab)
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-requisite(s): EMSP 2330, 2434 and departmental approval.
Course Type: Technical

EMSP 2268 Emergency Medical Technician Paramedic Practicum 2 Credits  (0 Lec, 14 Lab)
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(s): EMSP 2243 or departmental approval.
Course Type: Technical

EMSP 2330 Special Populations 3 Credits  (2 Lec, 3 Lab)
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.
Prerequisite(s): EMSP 2206, EMSP 2444 or departmental approval.
Reading level 7, Writing level 7, and Math level 8.
Course Type: Technical

EMSP 2352 Emergency Medical Services Research 3 Credits  (3 Lec, 1 Lab)
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.
Course Type: Technical
ENGINEER DESIGN GRAPH (DFTG)

DFTG 1305 Technical Drafting  3 Credits  (2 Lec, 4 Lab)
This course is an introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, and auxiliary views.
Course Type: Technical

DFTG 1409 Basic Computer-Aided Drafting  4 Credits  (3 Lec, 3 Lab)
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.
Course Type: Technical

DFTG 1417 Architectural Drafting-Residential  4 Credits  (3 Lec, 3 Lab)
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.
Prerequisite(s): DFTG 1305 and DFTG 1409 or department chair approval
Course Type: Technical

DFTG 1433 Mechanical Drafting  4 Credits  (3 Lec, 3 Lab)
This course is a study of mechanical drawings using dimensioning and tolerances, sectioning techniques, orthographic projection, and pictorial drawings.
Prerequisite(s): DFTG 1305 and DFTG 1409 or department chair approval
Course Type: Technical

DFTG 1445 Parametric Modeling and Design  4 Credits  (3 Lec, 3 Lab)
This course offers training with a parametric-based design software for 3D design and drafting.
Prerequisite(s): DFTG 1305 and DFTG 1409 or department chair approval
Course Type: Technical

DFTG 2317 Descriptive Geometry  3 Credits  (2 Lec, 4 Lab)
This course focuses on developing graphical solutions to problems involving points, lines, and planes in space.
Prerequisite(s): DFTG 1305
Course Type: Technical

DFTG 2338 Final Project - Advanced Drafting  3 Credits  (2 Lec, 4 Lab)
This is a drafting course in which students participate in a comprehensive project from conception to conclusion. Department chair approval required.
Prerequisite(s): 16 credit hours of Engineering Design Graphics courses from the following group: ARCE 1415, ARCE 1421, ARCE 1452, DFTG 1417, DFTG 1433, DFTG 2402, DFTG 2406, DFTG 2407, DFTG 2408, DFTG 2421, DFTG 2423, DFTG 2428, DFTG 2430, DFTG 2431, DFTG 2435, DFTG 2445, DFTG 2450, DFTG 2457, DFTG 2458, or department chair approval. Eight of these credits must be earned at San Jacinto College.
Course Type: Technical

DFTG 2386 Internship-Drafting and Design Technology/Technician  3 Credits  (0 Lec, 18 Lab)
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. The college does not contract with companies to provide employment. Finding a suitable drafting position is the responsibility of the student. The student must acquire a minimum of 288 hours of supervised, work-based drafting or engineering-related experience during the semester to successfully complete the course. The job description for the work site must relate to the general curriculum of the Engineering Design Graphics department. Department chair approval required.
Prerequisite(s): 16 hours of Engineering Design Graphics courses from the following group: ARCE 1415, ARCE 1421, ARCE 1452, DFTG 1417, DFTG 1433, DFTG 2402, DFTG 2406, DFTG 2407, DFTG 2408, DFTG 2421, DFTG 2423, DFTG 2428, DFTG 2430, DFTG 2431, DFTG 2435, DFTG 2445, DFTG 2450, DFTG 2457, DFTG 2458, or department chair approval. Eight of these credits must be earned at San Jacinto College.
Course Type: Technical

DFTG 2402 Machine Drafting  4 Credits  (3 Lec, 3 Lab)
This course will include a study of production of detail and assembly drawings of machines, threads, gears, utilizing tolerances, limit dimensioning, and surface finishes.
Prerequisite(s): DFTG 1305 and DFTG 1409 or department chair approval
Course Type: Technical

DFTG 2406 Machine Design  4 Credits  (3 Lec, 3 Lab)
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(s): DFTG 1445 or department chair approval
Course Type: Technical

DFTG 2407 Electrical Drafting  4 Credits  (3 Lec, 3 Lab)
This course is a study of area lighting, control systems and power layouts, electrical and safety codes, local factors and distribution requirements.
Prerequisite(s): DFTG 1305 and DFTG 1409 or department chair approval
Course Type: Technical

DFTG 2408 Instrumentation Drafting  4 Credits  (3 Lec, 3 Lab)
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.
Prerequisite(s): DFTG 1305 and DFTG 1409 or department chair approval
Course Type: Technical

DFTG 2421 Topographic Drafting  4 Credits  (3 Lec, 3 Lab)
This course focuses on the plotting of surveyor's field notes, including drawing elevations, contour lines, plan and profiles, and laying out traverses.
Prerequisite(s): DFTG 1305 and DFTG 1409 or department chair approval
Course Type: Technical
DFTG 2423  Pipe Drafting  4 Credits  (3 Lec, 3 Lab)
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.
Prerequisite(s): DFTG 1305 and DFTG 1409 or department chair approval
Course Type: Technical

DFTG 2428  Architectural Drafting-Commercial  4 Credits  (3 Lec, 3 Lab)
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.
Prerequisite(s): DFTG 1305 and DFTG 1409 or department chair approval
Course Type: Technical

DFTG 2430  Civil Drafting  4 Credits  (3 Lec, 3 Lab)
This course is an in-depth study of drafting methods and principles used in civil engineering.
Prerequisite(s): DFTG 2421 or department chair approval
Course Type: Technical

DFTG 2431  Advanced Technologies in Architectural Design and Drafting  4 Credits  (3 Lec, 3 Lab)
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(s): DFTG 1417 or DFTG 2428 or department chair approval
Course Type: Technical

DFTG 2432  Advanced Computer-Aided Drafting  4 Credits  (3 Lec, 3 Lab)
This course covers application of advanced CAD techniques.
Prerequisite(s): DFTG 1409 or department chair approval
Course Type: Technical

DFTG 2435  Advanced Technologies in Mechanical Design and Drafting  4 Credits  (3 Lec, 3 Lab)
This course will focus on the use of parametric-based software for mechanical design for advanced modeling and analysis.
Prerequisite(s): DFTG 2406 or department chair approval
Course Type: Technical

DFTG 2440  Solid Modeling/Design  4 Credits  (3 Lec, 3 Lab)
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(s): DFTG 1305 and DFTG 1409 or department chair approval
Course Type: Technical

DFTG 2445  Advanced Pipe Drafting  4 Credits  (3 Lec, 3 Lab)
This course is a continuation of pipe drafting concepts building on basic principles acquired in pipe drafting.
Prerequisite(s): DFTG 2423 or department chair approval
Course Type: Technical

DFTG 2450  Geometric Dimensioning and Tolerancing  4 Credits  (3 Lec, 3 Lab)
This course is a study of Geometric dimensioning and tolerancing, according to standards, application of various geometric dimensions and tolerances to production drawings.
Prerequisite(s): DFTG 1433 or department chair approval
Course Type: Technical

DFTG 2457  Advanced Technologies in Pipe Design and Drafting  4 Credits  (3 Lec, 3 Lab)
This course focuses on advanced design and production techniques using specialized process plant based design software.
Prerequisite(s): DFTG 2423 or department chair approval
Course Type: Technical

DFTG 2458  Advanced Machine Design  4 Credits  (3 Lec, 3 Lab)
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(s): DFTG 2406 or department chair approval
Course Type: Technical
ENGINEERING (ENGR)

ENGR 1201 Introduction to Engineering  2 Credits  (1 Lec, 3 Lab)
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(s): Reading level 7, MATH 1314 or higher.
Course Type: Academic

ENGR 1304 Engineering Graphics I  3 Credits  (2 Lec, 2 Lab)
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(s): MATH 1314 or higher.
Course Type: Academic

ENGR 2105 Electrical Circuits I Laboratory  1 Credit  (0 Lec, 3 Lab)
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(s): ENGR 2305.
Course Type: Academic

ENGR 2301 Engineering Mechanics - Statics  3 Credits  (3 Lec, 0 Lab)
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(s): PHYS 2325 and PHYS 2125.
Course Type: Academic

ENGR 2302 Engineering Mechanics - Dynamics  3 Credits  (3 Lec, 0 Lab)
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(s): ENGR 2301.
Course Type: Academic

ENGR 2304 Programming for Engineers  3 Credits  (3 Lec, 0 Lab)
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(s): MATH 2413.
Course Type: Academic

ENGR 2305 Electrical Circuits I  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): PHYS 2326 and PHYS 2126.
Co-requisite(s): MATH 2320 and ENGR 2105.
Course Type: Academic

ENGR 2308 Engineering Economics  3 Credits  (3 Lec, 0 Lab)
The student will utilize methods for determining the comparative financial desirability of engineering alternatives; 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(s): MATH 2413
Course Type: Academic
ENGINEER DESIGN GRAPH (ARCE)

ARCE 1415 Structural Steel Detailing 4 Credits (3 Lec, 3 Lab)
This course covers the preparation of structural steel drawings and bill of materials for the purpose of fabrication and erection. Emphasis will be placed upon using structural design framing plans to develop detailed steel members, connections, and assemblies.
Prerequisite(s): ARCE 1452 or department chair approval
Course Type: Technical

ARCE 1421 Architectural Illustration 4 Credits (3 Lec, 3 Lab)
This course focuses on architectural drawing and sketching. Emphasizes architectural structures in 3-D or pictorially, either by hand or computer software.
Course Type: Technical

ARCE 1452 Structural Drafting 4 Credits (3 Lec, 3 Lab)
This course is a study of structural systems including concrete foundations and frames, wood framing and trusses, and structural steel framing systems, including detailing of concrete, wood, and steel to meet industry standards of the American Institute of Steel Construction and The American Concrete Institute.
Prerequisite(s): DFTG 1305 and DFTG 1409 or department chair approval
Course Type: Technical
### ENGLISH (ENGL)

**ENGL 0107 Developmental Writing (NCBO) 1 Credit (1 Lec, 0 Lab)**
This course is a study of the development of fundamental writing skills such as idea generation, organization, style, utilization of standard English, and revision.
Course Type: College Prep

**ENGL 0306 Beginning Writing Skills 3 Credits (3 Lec, 1 Lab)**
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(s): Writing level 4.
Course Type: College Prep

**ENGL 0307 Preparation for College English 3 Credits (3 Lec, 0 Lab)**
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(s): A grade of C or above in ENGL 0306 or writing score within defined range
Course Type: College Prep

**ENGL 0308 Writing and Grammar: English for Speakers of Other Languages 3 Credits (3 Lec, 1 Lab)**
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(s): A grade of C or above in ENGL 0306 or writing score within defined range
Course Type: College Prep

**ENGL 1301 Composition I 3 Credits (3 Lec, 0 Lab)**
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.
Prerequisite(s): Reading level 7 and Writing level 7
Course Type: Academic

**ENGL 1302 Composition II 3 Credits (3 Lec, 0 Lab)**
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(s): ENGL 1301 or equivalent
Course Type: Academic

**ENGL 2301 Technical and Business Writing 3 Credits (3 Lec, 0 Lab)**
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 creating of ethical and efficient documents.
Prerequisite(s): ENGL 1301
Course Type: Academic

**ENGL 2302 British Literature I 3 Credits (3 Lec, 0 Lab)**
This is a survey of the development of British literature from the Anglo-Saxon period to the Eighteenth 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(s): ENGL 1301
Course Type: Academic

**ENGL 2303 British Literature II 3 Credits (3 Lec, 0 Lab)**
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(s): ENGL 1301
Course Type: Academic

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ENGL 2327 American Literature I 3 Credits (3 Lec, 0 Lab)
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(s): ENGL 1301
Course Type: Academic

ENGL 2328 American Literature II 3 Credits (3 Lec, 0 Lab)
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(s): ENGL 1301
Course Type: Academic

ENGL 2332 World Literature I 3 Credits (3 Lec, 0 Lab)
This is a survey of world literature from the ancient world through the sixteenth 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(s): ENGL 1301
Course Type: Academic

ENGL 2333 World Literature II 3 Credits (3 Lec, 0 Lab)
This is a survey of world literature from the seventeenth 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(s): ENGL 1301
Course Type: Academic

ENGL 2341 Forms of Literature: Literature and Film 3 Credits (3 Lec, 0 Lab)
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(s): ENGL 1301
Course Type: Academic

ENGL 2351 Mexican American Literature 3 Credits (3 Lec, 0 Lab)
A survey of Mexican American/Chicano/a literature from Mesoamerica to the present. Students will study literary works of fiction, poetry, drama, essays, and memoirs in relation to their historical, linguistic, political, regional, gendered, and cultural contexts. Texts will be selected from a diverse group of authors, literary movements, and media forms. Topics and themes may include the literary performance of identity and culture, aesthetic mediation of racialization, struggle and protest, and artistic activism.
Prerequisite(s): ENGL 1301
Course Type: Academic

ENGL 2370 Selected Studies in Literature 3 Credits (3 Lec, 0 Lab)
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(s): ENGL 1301
Course Type: Academic

ENGL 2389 Academic Cooperative in Composition 3 Credits (1 Lec, 8 Lab)
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(s): ENGL 1302, a professor’s written recommendation, and a writing sample. Reading level 7, Writing level 7
Course Type: Academic
ENGLISH/SPKRS OTHER LANG (ESOL)

ESOL 0110  English as a Second Language (NCBO)  1 Credit  (1 Lec, 0 Lab)
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.
Course Type: College Prep

ESOL 0311  Introductory Listening and Speaking  3 Credits  (3 Lec, 1 Lab)
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(s): standardized test of English language proficiency.
Course Type: College Prep

ESOL 0351  Introductory Composition  3 Credits  (3 Lec, 0 Lab)
This course focuses on strategies and techniques of writing and composition. Open only to non-native speakers.
Course Type: College Prep

ESOL 0362  Intermediate ESOL Oral Communication  3 Credits  (3 Lec, 1 Lab)
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(s): ESOL 0311 or meet the required score on a standardized test of English language proficiency. This is an intermediate-level course.
Course Type: College Prep

ESOL 0363  Advanced ESOL Oral Communication  3 Credits  (3 Lec, 1 Lab)
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(s): 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.
Course Type: College Prep

ESOL 0372  Intermediate Reading and Writing for Non-Native Speakers  3 Credits  (3 Lec, 1 Lab)
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(s): ESOL 0372 or meet the required score on a standardized test of English language proficiency. This is an advanced-level course.
Course Type: College Prep

ESOL 0373  Advanced Reading and Writing for Non-Native Speakers  3 Credits  (3 Lec, 1 Lab)
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(s): ESOL 0372 or meet the required score on a standardized test of English language proficiency. This is an advanced-level course.
Course Type: College Prep

ESOL 0382  Intermediate Grammar for Non-Native Speakers  3 Credits  (3 Lec, 1 Lab)
This course focuses on Standard English grammar usage for academic purposes. Open only to non-native speakers.
Prerequisite(s): Meet the required score on standardized test of English language proficiency. This is an intermediate-level course.
Course Type: College Prep

ESOL 0383  Advanced Grammar for Non-Native Speakers  3 Credits  (3 Lec, 1 Lab)
This course focuses on Standard English grammar usage for academic purposes. Open only to non-native speakers.
Prerequisite(s): ESOL 0382 or meet the required score on a standardized test of English language proficiency. This is an advanced-level course.
Course Type: College Prep

San Jacinto College 2019-2020
ENGLISH/TECH WRITING (ETWR)

ETWR 1302  Introduction to Technical Writing  3 Credits  (3 Lec, 0 Lab)
This course introduces the principles, techniques, and skills needed for scientific, technical, and business writing. This course is designed for technical students.
Prerequisite(s): Reading level 4

Course Type: Technical
ENVIRONMENTAL TECH (EPCT)

EPCT 1301 Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics 3 Credits (3 Lec, 1 Lab)
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.
Prerequisite(s): EPCT 1307. Reading level 6, Writing level 6, Math level 6
Course Type: Technical

EPCT 1305 Environmental Regulations Overview 3 Credits (3 Lec, 0 Lab)
This course provides an introduction to the history of the environmental movement, including basic requirements for compliance with the environmental regulations.
Prerequisite(s): EPCT 1307; Reading level 6, Writing level 6, Math level 6
Course Type: Technical

EPCT 1307 Introduction to Environmental Safety and Health 3 Credits (3 Lec, 0 Lab)
This course provides a historic overview of environmental safety and health. Emphasis is on the use of occupational safety and health codes.
Course Type: Technical

EPCT 1311 Introduction to Environmental Science 3 Credits (3 Lec, 0 Lab)
This course provides an overview of environmental science and current global concerns, and a brief history of environmental ethics, resource use, and conservation. It includes a discussion of fundamental principles of resource economics and environmental health.
Prerequisite(s): EPCT 1307; Reading level 6, Writing level 6, Math level 6
Course Type: Technical

EPCT 1313 Contingency Planning 3 Credits (3 Lec, 0 Lab)
This course provides an introduction to the development of an emergency response contingency plan for a facility or community. Emphasis is on analyzing the hazards, writing and implementing the contingency plans, and evaluating the effectiveness of the contingency plan.
Prerequisite(s): EPCT 1307; Reading level 6, Writing level 6, Math level 6
Course Type: Technical

EPCT 1341 Principles of Industrial Hygiene 3 Credits (3 Lec, 0 Lab)
This course covers concepts in threshold limits, dose response, and general recognition of occupational hazards, including sampling statistics, calibration, and equipment use. It includes a study of the control of occupational hazards and sample collection and evaluation methods.
Prerequisite(s): EPCT 1307, CHEM 1311 and CHEM 1111, and MATH 1314; Reading level 6, Writing level 6
Course Type: Technical

EPCT 1349 Environmental Regulations Interpretation & Applications 3 Credits (3 Lec, 0 Lab)
This course is an in-depth study of the major federal and state environmental regulations.
Prerequisite(s): INTC 1348
Course Type: Technical

EPCT 2333 Environmental Toxicology 3 Credits (3 Lec, 0 Lab)
This course provides a review of the research determining the systematic health effects of exposures to chemical. It includes a discussion of risk factors, routes of entry, control measures, and acute and chronic effects.
Prerequisite(s): EPCT 1307, CHEM 1311 and CHEM 1111, and MATH 1314; Reading level 6, Writing level 6
Course Type: Technical
EYE CARE TECHNOLOGY (OPTS)

OPTS 1166 Ophthalmic Practicum I 1 Credit (0 Lec, 8 Lab)
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.
Course Type: Technical

OPTS 1167 Practicum - Opticianry/Ophthalmic Dispensing Optician 1 Credit (0 Lec, 8 Lab)
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): OPTS 1501 and 1309.
Co-requisite(s): OPTS 2431
Course Type: Technical

OPTS 1171 Introduction to Eye Care Professions 1 Credit (1 Lec, 1 Lab)
This course will be an introduction to the eye care profession. Clinic and personnel functions including performance objectives will be discussed. All aspects of the field including practice styles, patient support services, certifications, and sub-specialties will be included.
Course Type: Technical

OPTS 1266 Practicum - Ophthalmic Dispensing Optician 2 Credits (0 Lec, 16 Lab)
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): OPTS 1311, 2441
Course Type: Technical

OPTS 1267 Practicum Opticianry/Ophthalmic Dispensing Optician 2 Credits (0 Lec, 16 Lab)
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): OPTS 1501, 1309, 2431, and 1167
Course Type: Technical

OPTS 1309 Ophthalmic Laboratory I 3 Credits (2 Lec, 3 Lab)
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 multifocal lenses.
Co-requisite(s): OPTS 1501
Course Type: Technical

OPTS 1311 Visual System 3 Credits (3 Lec, 0 Lab)
This is an overview of the visual system including the anatomy and physiology of the eye, related structures, and diseases.
Course Type: Technical

OPTS 1315 Basic Contact Lenses 3 Credits (2 Lec, 3 Lab)
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.
Course Type: Technical

OPTS 1371 Anatomy and Physiology for Eye Care Technology 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

OPTS 1392 Special Topics in Opticianry/Dispensing Optician 3 Credits (3 Lec, 1 Lab)
This course covers recently identified current events, skills, knowledges, 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 taken twice to improve student proficiency.
Course Type: Technical

OPTS 1401 Ophthalmic Dispensing 4 Credits (3 Lec, 4 Lab)
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.
Course Type: Technical

OPTS 1501 Ophthalmic Dispensing 5 Credits (3 Lec, 6 Lab)
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.
Course Type: Technical

OPTS 2167 Practicum Opticianry/Ophthalmic Dispensing Optician 1 Credit (0 Lec, 8 Lab)
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): OPTS 1311, OPTS 1401, OPTS 1167
Course Type: Technical

OPTS 2266 Ophthalmic Practicum II 2 Credits (0 Lec, 16 Lab)
This course covers practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.
Prerequisite(s): OPTS 1166
Course Type: Technical

OPTS 2350 Ophthalmic Surgical Techniques 3 Credits (2 Lec, 3 Lab)
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.
Course Type: Technical
OPTS 2366  Practicum - Opticianry/Ophthalmic Dispensing Optician  3 Credits  (0 Lec, 24 Lab)
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): OPTS 1311, 2441, 1166, 1266, 2445, and 2266
Course Type: Technical

OPTS 2431  Advanced Ophthalmic Dispensing  4 Credits  (2 Lec, 6 Lab)
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(s): OPTS 1501
Course Type: Technical

OPTS 2441  Ophthalmic Techniques  4 Credits  (2 Lec, 6 Lab)
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.
Course Type: Technical

OPTS 2445  Advanced Ophthalmic Techniques  4 Credits  (2 Lec, 6 Lab)
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(s): OPTS 2441
Course Type: Technical
FIRE PROTECTION TECH (FIRS)

FIRS 1301 Firefighter Certification I 3 Credits (2 Lec, 3 Lab)
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*** 32 lecture hours, 16 hours of skills development. Firefighter Training Academy.
Course Type: Technical

FIRS 1313 Firefighter Certification III 3 Credits (3 Lec, 1 Lab)
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, 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.
Course Type: Technical

FIRS 1319 Firefighter Certification IV 3 Credits (2 Lec, 3 Lab)
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, 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.
Course Type: Technical

FIRS 1323 Firefighter Certification V 3 Credits (2 Lec, 4 Lab)
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, 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.
Course Type: Technical

FIRS 1329 Firefighter Certification VI 3 Credits (3 Lec, 1 Lab)
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.
Course Type: Technical

FIRS 1333 Firefighter Certification VII 3 Credits (1 Lec, 5 Lab)
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.
Course Type: Technical

FIRS 1407 Firefighter Certification II 4 Credits (2 Lec, 5 Lab)
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*** 48 lecture hours, 48 hours of skills development. Firefighter Training Academy.
Course Type: Technical

FIRS 1423 Firefighter Certification V 4 Credits (3 Lec, 3 Lab)
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.
Course Type: Technical

FIRS 1433 Firefighter Certification VII 4 Credits (2 Lec, 5 Lab)
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*** 32 lecture hours, 80 hours of skills development. Firefighter Training Academy.
Course Type: Technical
FIRE PROTECTION TECH (FIRT)

FIRT 1303 Fire and Arson Investigation 3 Credits (3 Lec, 1 Lab)
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.
Course Type: Technical

FIRT 1309 Fire Administration I 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

FIRT 1315 Hazardous Materials I 3 Credits (3 Lec, 1 Lab)
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.
Course Type: Technical

FIRT 1319 Firefighter Health and Safety 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

FIRT 1327 Building Construction for the Fire Service 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

FIRT 1338 Fire Protection Systems 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

FIRT 1342 Fire Officer I 3 Credits (3 Lec, 1 Lab)
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**
Course Type: Technical

FIRT 1343 Fire Officer II 3 Credits (3 Lec, 1 Lab)
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**
Course Type: Technical

FIRT 1345 Hazardous Materials II 3 Credits (3 Lec, 1 Lab)
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.
Course Type: Technical

FIRT 1349 Fire Administration II 3 Credits (3 Lec, 0 Lab)
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(s): FIRT 1309
Course Type: Technical

FIRT 1370 Technical Rope Rescue I 3 Credits (2 Lec, 3 Lab)
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 Rescue 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.
Course Type: Technical

FIRT 1408 Fire Inspector I 4 Credits (3 Lec, 3 Lab)
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**
Course Type: Technical

FIRT 1440 Fire Inspector II 4 Credits (3 Lec, 3 Lab)
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**
Course Type: Technical

FIRT 2112 Hazardous Materials Incident Commander 1 Credit (1 Lec, 1 Lab)
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.**
Course Type: Technical
FIRT 2305 Fire Instructor I 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

FIRT 2309 Firefighting Strategies and Tactics I 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

FIRT 2331 Firefighting Strategies and Tactics II 3 Credits (3 Lec, 0 Lab)
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(s): FIRT 1311
Course Type: Technical

FIRT 2333 Fire and Arson Investigation II 3 Credits (3 Lec, 1 Lab)
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.
Course Type: Technical

FIRT 2345 Hazardous Materials III 3 Credits (3 Lec, 1 Lab)
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.
Course Type: Technical

FIRT 2351 Company Fire Officer 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

FIRT 2356 Fire Officer III 3 Credits (3 Lec, 1 Lab)
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**
Course Type: Technical

FIRT 2359 Fire Instructor III 3 Credits (3 Lec, 1 Lab)
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**
Course Type: Technical

FIRT 2370 Technical Rope Rescue II 3 Credits (2 Lec, 3 Lab)
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(s): FIRT 1370
Course Type: Technical
FRENCH (FREN)

FREN 1411  Beginning French I  4 Credits  (3 Lec, 2 Lab)
This is a fundamental skills course in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.
Prerequisite(s): Reading level 6
Course Type: Academic

FREN 1412  Beginning French II  4 Credits  (3 Lec, 2 Lab)
This is a fundamental skills course in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.
Prerequisite(s): FREN 1411
Course Type: Academic

FREN 2311  Intermediate French I  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): FREN 1411-1412
Course Type: Academic

FREN 2312  Intermediate French II  3 Credits  (3 Lec, 0 Lab)
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(s): FREN 2311
Course Type: Academic
GEOGRAPHY (GEOG)

GEOG 1301  Physical Geography  3 Credits  (3 Lec, 0 Lab)
This course introduces students to the processes that drive Earth's physical systems. Students will explore the relationships among these physical systems, with emphasis on weather and climate, water, ecosystems, geologic processes and landform development, and human interactions with the physical environment.
Prerequisite(s): Reading level 6

Course Type: Academic

GEOG 1302  Human Geography  3 Credits  (3 Lec, 0 Lab)
This course introduces students to fundamental concepts, skills, and practices of human geography. Place, space, and scale serve as a framework for understanding patterns of human experience. Topics for discussion may include globalization, population and migration, culture, diffusion, political and economic systems, language, religion, gender, and ethnicity.
Prerequisite(s): Reading level 7 and Writing level 7

Course Type: Academic

GEOG 1303  World Regional Geography  3 Credits  (3 Lec, 0 Lab)
This course is an introduction to the world's major regions seen through their defining physical, social, cultural, political, and economic features. These regions are examined in terms of their physical and human characteristics and their interactions. The course emphasizes relations among regions on issues such as trade, economic development, conflict, and the role of regions in the globalization process.
Prerequisite(s): Reading level 6 and Writing level 6.

Course Type: Academic
GEOL 1101 Earth Sciences for Non-Science Majors I (lab) 1 Credit (0 Lec, 3 Lab)
This introductory lab course provides a survey of astronomy, geology, oceanography, and meteorology for non-science majors.
Prerequisite(s): Reading level 7, Writing level 7, Math level 6;
Co-requisite(s): GEOL 1301
Course Type: Academic

GEOL 1103 Physical Geology (lab) 1 Credit (0 Lec, 3 Lab)
This laboratory-based course accompanies GEOL 1303, Physical Geology. Laboratory activities will cover methods used to collect and analyze earth science data. Field trip(s) may be required. Prerequisite Reading level 7;
Co-requisite(s): GEOL 1303
Course Type: Academic

GEOL 1104 Historical Geology (lab) 1 Credit (0 Lec, 3 Lab)
This laboratory-based course accompanies GEOL 1304, Historical Geology. Laboratory activities will introduce methods used by scientists to interpret the history of life and major events in the physical development of Earth from rocks and fossils. Field trip(s) may be required.
Prerequisite(s): GEOL 1303 1103, Reading level 7;
Co-requisite(s): GEOL 1104
Course Type: Academic

GEOL 1105 Environmental Science (lab) 1 Credit (0 Lec, 3 Lab)
This laboratory based course accompanies GEOL 1305, Environmental Science (lecture). Activities will cover methods used to collect and analyze environmental data. Field trip(s) are required.
Prerequisite(s): Reading level 7;
Co-requisite(s): GEOL 1105
Course Type: Academic

GEOL 1301 Earth Sciences for Non-Science Majors I (lecture) 3 Credits (3 Lec, 0 Lab)
This introductory lecture course provides a survey of astronomy, geology, oceanography, and meteorology for non-science majors.
Prerequisite(s): Reading level 7, Writing level 7, Math level 6;
Co-requisite(s): GEOL 1101
Course Type: Academic

GEOL 1303 Physical Geology (lecture) 3 Credits (3 Lec, 0 Lab)
This lecture 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(s): Reading level 7;
Co-requisite(s): GEOL 1103
Course Type: Academic

GEOL 1304 Historical Geology (lecture) 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): GEOL 1303 1103, Reading level 7;
Co-requisite(s): GEOL 1104
Course Type: Academic

GEOL 1305 Environmental Science (lecture) 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7;
Co-requisite(s): GEOL 1105
Course Type: Academic

GEOL 2389 Academic Cooperative 3 Credits (1 Lec, 8 Lab)
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.
Prerequisite(s): Eight hours of geology; Reading level 7, Writing level 7, Math level 8
Course Type: Academic

San Jacinto College 2019-2020
GERMAN (GERM)

GERM 1411  Beginning German I  4 Credits  (3 Lec, 2 Lab)
This is a fundamentals skills course in listening comprehension, speaking, reading, and writing German. Includes basic vocabulary, grammatical structures, and culture.
Prerequisite(s): Reading level 6

Course Type: Academic

GERM 1412  Beginning German II  4 Credits  (3 Lec, 2 Lab)
This is a fundamentals skills course in listening comprehension, speaking, reading, and writing. It includes basic vocabulary, grammatical structures, and culture.
Prerequisite(s): GERM 1411

Course Type: Academic

GERM 2311  Intermediate German I  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): GERM 1411-1412

Course Type: Academic

GERM 2312  Intermediate German II  3 Credits  (3 Lec, 0 Lab)
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(s): GERM 2311

Course Type: Academic
GOVERNMENT (GOVT)

GOVT 2107 Federal and Texas Constitutions 1 Credit (1 Lec, 0 Lab)
This course is a study of the United States and state constitutions, with special emphasis on Texas. 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.
Prerequisite(s): 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. Reading level 7 and Writing level 7, and GOVT 2302 and co-requisite GOVT 2305, or GOVT 2302 and co-requisite GOVT 2306.

Course Type: Academic

GOVT 2304 Introduction to Political Science 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7 and Writing level 7

Course Type: Academic

GOVT 2305 Federal Government (Federal Constitution and Topics) 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7

Course Type: Academic

GOVT 2306 Texas Government (Texas Constitution and Topics) 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7

Course Type: Academic

GOVT 2311 Mexican American and Latino/a Politics 3 Credits (3 Lec, 0 Lab)
The study of Mexican American and Latino/a politics within the American political experience. Topics include historical, cultural, socioeconomic, and constitutional issues that pertain to the study of Mexican Americans and other Latino/a populations in the United States. Other topics such as political participation, governmental institutions, electoral politics, political representation, demographic trends, and other contemporary public policy debates will also be addressed.
Prerequisite(s): Reading level 7 and Writing level 7

Course Type: Academic

GOVT 2389 Academic Cooperative 3 Credits (1 Lec, 8 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7

Course Type: Academic
HEALTH INFO MANAGEMENT (HITT)

HITT 1255  Healthcare Statistics: Cancer Epidemiology and Statistics  2 Credits  (2 Lec, 0 Lab)
This course covers principles of health care statistics with emphasis in hospital statistics, and skill development in computation and calculation of health data. This course also provides an introduction to epidemiology and statistics for tumor registrars, with an emphasis on use of registry data for epidemiologic research. The course includes an overview of statistical and epidemiologic terminology and methods, and analysis and presentation of cancer data for education and research.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8
Course Type: Technical

HITT 1301  Health Data Content and Structure  3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical

HITT 1305  Medical Terminology I  3 Credits  (3 Lec, 0 Lab)
This is a study of medical terms through word origin and structure. Introduction to abbreviations and symbols, surgical and diagnostic procedures, and medical specialties.
Course Type: Technical

HITT 1307  Cancer Data Management I: Introduction to Cancer Registry Management  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading Level 7, Writing Level 7, Math Level 8; HITT 1305, BIOL 2404, HITT 2371.
Co-requisite(s): HITT 2307
Course Type: Technical

HITT 1311  Health Information Systems  3 Credits  (2 Lec, 2 Lab)
This is an introduction to health IT standards, health-related data structures, software applications and enterprise architecture in health care and public health.
Course Type: Technical

HITT 1341  Coding and Classification Systems  3 Credits  (2 Lec, 3 Lab)
This course covers the fundamentals of coding rules, conventions and guidelines using clinical classification systems.
Prerequisite(s): HITT 1305
Course Type: Technical

HITT 1345  Health Care Delivery Systems  3 Credits  (3 Lec, 0 Lab)
This is an introduction to organization, financing, and delivery of health care services, accreditation, licensure, and regulatory agencies.
Prerequisite(s): Reading level 7, Writing level 7.
Course Type: Technical

HITT 1353  Legal and Ethical Aspects of Health Information  3 Credits  (3 Lec, 0 Lab)
This course covers the concepts of privacy, security confidentiality, ethics, health care legislation, and regulations relating to the maintenance and use of health information.
Course Type: Technical

HITT 1360  Clinical-Health Information/Medical Records Technology/Technician  3 Credits  (0 Lec, 9 Lab)
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(s): Reading level 7, Writing level 7, Math level 8
Course Type: Technical

HITT 1361  Clinical-Cancer Data Management  3 Credits  (0 Lec, 9 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8; HITT 2370, HITT 2372;
Co-requisite(s): HITT 1255
Course Type: Technical

HITT 1374  Anatomy and Physiology  3 Credits  (3 Lec, 1 Lab)
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.
Course Type: Technical

HITT 1377  Clinical - Medical Billing  3 Credits  (0 Lec, 9 Lab)
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.
Course Type: Technical

HITT 1378  Medical Insurance  3 Credits  (3 Lec, 0 Lab)
This course covers rules and processes required for accurate and efficient billing of medical insurance claims.
Course Type: Technical

HITT 2145  Billing Certification Exam Review  1 Credit  (1 Lec, 0 Lab)
This course is a review of coding competencies and skills in preparation for a coding certification exam; and a review of billing competencies and skills in preparation for a billing certification exam.
Course Type: Technical
HITT 2245 Coding Certification Exam Review  2 Credits  (2 Lec, 0 Lab)
This is a review of the coding competencies and skills in preparation of a coding certification exam.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8
Course Type: Technical

HITT 2249 RHIT Competency Review  2 Credits  (1 Lec, 2 Lab)
This is a review of Health Information Technology (HIT) competencies, skills, and knowledge.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8
Course Type: Technical

HITT 2307 Cancer Data Management II: Abstracting Principles and Practices I  3 Credits  (3 Lec, 0 Lab)
This is a continuation of Cancer Data Management I to include the application of cancer registry data.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8.
Co-requisite(s): HITT 1307
Course Type: Technical

HITT 2335 Coding and Reimbursement Methodologies  3 Credits  (2 Lec, 2 Lab)
This course covers advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8; and HITT 1341
Course Type: Technical

HITT 2339 Health Information Organization and Supervision  3 Credits  (3 Lec, 0 Lab)
This course covers the principles of organization and supervision of human, financial, and physical resources.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8
Course Type: Technical

HITT 2343 Quality Assessment and Performance Improvement  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8
Course Type: Technical

HITT 2346 Advanced Medical Coding  3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical

HITT 2361 Clinical-Health Information/Medical Records Technology/Technician  3 Credits  (0 Lec, 9 Lab)
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(s): Reading level 7, Writing level 7, Math level 8
Course Type: Technical

HITT 2370 Cancer Data Management III: Abstracting Principles and Practices II  3 Credits  (3 Lec, 0 Lab)
This is an advanced level course in Cancer Data Management to include Cancer Program requirements, the American College of Surgeons guidelines, and heavy concentration in abstracting, coding, staging and and State and National reporting requirements.
Prerequisite(s): Reading Level 7, Writing level 7, Math level 8; HITT 1307, HITT 2307
Course Type: Technical

HITT 2371 Pathophysiology and Pharmacology  3 Credits  (2 Lec, 2 Lab)
This course covers the study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and physiological reactions to diseases and injuries. Pharmacology is the study of drug uses, effects, and actions.
Course Type: Technical

HITT 2372 Oncology Coding and Staging  3 Credits  (3 Lec, 0 Lab)
This course provides an overview of oncology coding and staging systems (ICD-O-3, SSS2K, AJCC, the MP/H rules, and the Hematopoietic DB/Manual). Focus on coding clinical information from medical records; staging and extent of disease concepts used by physicians and cancer surveillance organizations; and the rules used to determine the number of primaries.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8.
Course Type: Technical
HEALTH PROFESSIONS (HPRS)

HPRS 1101 Introduction to Health Professions 1 Credit (1 Lec, 0 Lab)
This is an overview of roles of various members of the health care system, educational requirements, and issues affecting the delivery of health care.
Course Type: Technical

HPRS 1105 Medical Law/Ethics for Health Professions 1 Credit (1 Lec, 0 Lab)
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.
Course Type: Technical

HPRS 1106 Essentials of Medical Terminology 1 Credit (1 Lec, 0 Lab)
This course is a study of medical terminology, word origin, structure and application.
Course Type: Technical

HPRS 1201 Introduction to Health Professions 2 Credits (2 Lec, 0 Lab)
This course is an overview of roles of various members of health care system, educational requirements, and issues affecting the delivery of health care.
Course Type: Technical

HPRS 1202 Wellness and Health Promotion 2 Credits (2 Lec, 0 Lab)
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.
Co-requisite(s): FITT 2301.
Course Type: Technical

HPRS 1204 Basic Health Profession Skills - Sonography 2 Credits (2 Lec, 1 Lab)
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.
Course Type: Technical

HPRS 1206 Essentials of Medical Terminology 2 Credits (2 Lec, 0 Lab)
This course is a study of medical terminology, word origin, structure, and application.
Course Type: Technical

HPRS 1304 Basic Health Profession Skills 3 Credits (2 Lec, 2 Lab)
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.
Course Type: Technical

HPRS 2200 Pharmacology for Health Professions 2 Credits (2 Lec, 0 Lab)
This is a study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of doses.
Course Type: Technical

HPRS 2210 Basic Health Profession Skills II 2 Credits (1 Lec, 4 Lab)
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.
Prerequisite(s): OPTS 1311 and OPTS 2445.
Course Type: Technical

HPRS 2301 Pathophysiology 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

HPRS 2302 Medical Terminology for Allied Health 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical
HISTORY (HIST)

HIST 1301 United States History I 3 Credits (3 Lec, 0 Lab)
This is a survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity; American culture, religion, civil, and human rights, technological change, economic change, immigration and migration, and creation of the federal government.
Prerequisite(s): Reading level 7 and Writing level 7
Course Type: Academic

HIST 1302 United States History II 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7 and Writing level 7
Course Type: Academic

HIST 2301 Texas History 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7 and Writing level 7
Course Type: Academic

HIST 2311 Western Civilization I 3 Credits (3 Lec, 0 Lab)
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 Reformations.
Prerequisite(s): Reading level 7 and Writing level 7
Course Type: Academic

HIST 2312 Western Civilization II 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7 and Writing level 7
Course Type: Academic

HIST 2321 World Civilization I 3 Credits (3 Lec, 0 Lab)
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 transregional networks of exchange. The course emphasizes the development, interaction and impact of global exchange.
Prerequisite(s): Reading level 7, Writing level 7
Course Type: Academic

HIST 2322 World Civilization II 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7
Course Type: Academic

HIST 2327 Mexican American History I 3 Credits (3 Lec, 0 Lab)
This is a survey of the economic, social, political, intellectual, and cultural history of Mexican Americans/Chicano/a. Periods include early indigenous societies, conflict and conquest, early European colonization and empires, New Spain, early revolutionary period, Mexican independence and nation building, United States expansion to the United States-Mexico War Era. Themes to be addressed are mestizaje and racial formation in the early empire, rise and fall of native and African slavery, relationship to early global economies, development of New Spain’s/ Mexico’s northern frontier, gender and power, missions, resistance and rebellion, emergence of Mexican identities, California mission secularization, Texas independence, United States’ wars with Mexico, and the making of borders and borderlands. (May be applied to U.S. History requirement.)
Prerequisite(s): Reading level 7, Writing level 7
Course Type: Academic
HIST 2328 Mexican American History II 3 Credits (3 Lec, 0 Lab)
A survey of the economic, social, political, intellectual, and cultural history of Mexican Americans/Chicano/a. Periods include the United States-Mexico War Era, incorporation of Northern Mexico into the United States, Porfirián Mexico, and the nineteenth century American West, 1910 Mexican Revolution and Progressive Era, the Great Depression and New Deal, World War II and the Cold War, Civil Rights Era, Conservative Ascendancy, the age of NAFTA and turn of the 21st Century developments. Themes to be addressed are the making of borders and borderlands, impact of Treaty of Guadalupe Hidalgo, gender and power, migration and national identities, citizenship and expulsion, nineteenth century activism and displacement, industrialization and the making of a transnational Mexican working class, urbanization and community formation, emergence of a Mexican American Generation, war and citizenship, organized advocacy and activism, Chicano Movement, changing identifications and identities, trade and terrorism. (May be applied to U.S. History requirement.)
Prerequisite(s): Reading level 7, Writing level 7

Course Type: Academic

HIST 2381 African-American History 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7

Course Type: Academic

HIST 2389 Academic Cooperative 3 Credits (1 Lec, 8 Lab)
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.
Prerequisite(s): Six hours of history; Reading level 7, Writing level 7

Course Type: Academic
HOMELAND SECURITY (HMSY)

HMSY 1337  Introduction to Homeland Security  3 Credits  (3 Lec, 0 Lab)
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(s): Reading level 4

Course Type: Technical
HOSPITALITY ADM/MGT (HAMG)

HAMG 1319 Computers in Hospitality  3 Credits  (3 Lec, 1 Lab)
This is an introduction to the use of computers and their relationship as an information system to the hospitality industry. This course includes an overview of industry-specific software.
Course Type: Technical

HAMG 1340 Hospitality Legal Issues  3 Credits  (3 Lec, 0 Lab)
This is a course in legal and regulatory requirements that impact the hospitality industry. Topics include Occupational Safety and Health Administration (OSHA), labor regulations, tax laws, tip reporting, franchise regulations, and product liability laws.
Course Type: Technical
HUMANITIES (HUMA)

HUMA 1301 Introduction to the Humanities I  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7 and Writing level 7
Course Type: Academic

HUMA 1305 Introduction to Mexican-American Studies  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 6 and Writing level 6
Course Type: Academic

HUMA 1311 Mexican-American Art Appreciation  3 Credits  (3 Lec, 0 Lab)
This course is an examination of Mexican-American/Chicano artistic expressions in the visual and performing arts.
Prerequisite(s): Reading level 6
Course Type: Academic
**COMPUTER INFO/ART (IMED)**

**IMED 1301 Introduction to Digital Media 3 Credits (2 Lec, 4 Lab)**
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.
Course Type: Technical

**IMED 1316 Web Page Design I 3 Credits (2 Lec, 4 Lab)**
This course offers instruction in web design and related graphic design issues including mark-up languages, web sites, and browsers.
Prerequisite(s): ARTC 1325 or approval of department chair
Course Type: Technical

**IMED 1341 Interface Design with Photoshop 3 Credits (2 Lec, 2 Lab)**
This course offers skill development in the interface design process including selecting interfaces that are relative to a project's content and delivery system. Emphasis on aesthetic issues such as iconography, screen composition, colors, and typography.
Course Type: Technical

**IMED 2311 Web Portfolio Development 3 Credits (2 Lec, 2 Lab)**
This course includes preparation and enhancement of portfolio to meet professional standards, development of presentation skills, and improvement of job-seeking techniques.
Prerequisite(s): ITSC 1319, ITSE 1359, and ITSE 2313
Course Type: Technical

**IMED 2315 Web Page Design II 3 Credits (2 Lec, 4 Lab)**
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(s): IMED 1316 or approval of department chair
Course Type: Technical
INSTRUMENTATION (INCR)

INCR 1302  Physics of Instrumentation  3 Credits  (2 Lec, 2 Lab)
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.
Prerequisite(s): Reading level 6, Writing level 6, Math level 6
Course Type: Technical
INSTRUMENTATION TECH
(INTC)

INTC 1315 Final Control Elements 3 Credits (2 Lec, 2 Lab)
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(s): INTC 2310 Reading level 6, Writing level 6, Math level 6.
Course Type: Technical

INTC 1322 Analog Controls I 3 Credits (2 Lec, 2 Lab)
This course is a study of basic concepts related industrial electrical controls and analog electrical controls in industrial processes. Includes components, terminology, symbols and diagrams used in analog control systems, electrical distribution, motor controls, relay logic, and ladder logic. Prerequisite or Prerequisite(s): ELPT 1311 or CETT 1302, Reading level 6, Writing level 6, Math level 6
Co-requisite(s): INCR 1302, and
Course Type: Technical

INTC 1341 Principles of Automatic Control 3 Credits (2 Lec, 2 Lab)
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
Course Type: Technical

INTC 1348 Analytical Instrumentation 3 Credits (3 Lec, 0 Lab)
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(s): Department Chair Approval and INTC 2336 Reading level 6, Math level 6, Writing level 6
Course Type: Technical

INTC 1350 Digital Measurement and Controls 3 Credits
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)
Course Type: Technical

INTC 1353 Analog Controls II 3 Credits
This course is a study of analog controls in industrial processes. Includes electrical distribution, motor controls, relay logic, and ladder logic.
Prerequisite(s): INTC 1322, Reading level 6, Math level 6, Writing level 6 (3:2:2) This course will no longer be taught beginning Fall 2018.
Course Type: Technical

INTC 1355 Unit Operations 3 Credits (2 Lec, 2 Lab)
This course is an in-depth study of automatic control requirements of industrial process. Includes control systems, control loop tuning, and analysis.
Prerequisite(s): INTC 2310. Reading level 6, Math level 6, Writing level 6
Course Type: Technical

INTC 1375 Sample Systems 3 Credits (2 Lec, 2 Lab)
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: Department Chair Approval. Reading level 6, Math level 6, Writing level 6.
Course Type: Technical

INTC 2310 Principles of Industrial Measurement II 3 Credits (2 Lec, 2 Lab)
This course is a study of additional principles of measurement. Includes devices used to measure process variables and basic control functions. Prerequisite(s): INTC 1301 or INCR 1302. Reading level 6, Math level 6, Writing level 6.
Course Type: Technical

INTC 2330 Instrumentation Systems Troubleshooting 3 Credits (2 Lec, 2 Lab)
This course in an in-depth coverage of the techniques of troubleshooting instrumentation systems in a process environment. Includes troubleshooting upsets in processes.
Prerequisite(s): INTC 1315. Writing level 6, Math level 6, Reading level 6.
Course Type: Technical

INTC 2333 Instrumentation Systems Installation 3 Credits (2 Lec, 2 Lab)
This course covers synthesis, application, and integration of instrument installation components and includes a comprehensive final project.
Prerequisite(s): INTC 2310
Course Type: Technical

INTC 2336 Distributed Control and Programmable Logic 3 Credits (2 Lec, 2 Lab)
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(s): Reading level 6, Math level 6, Writing level 6
Course Type: Technical
INTC 2339 Instrument and Control Review  3 Credits  (3 Lec, 0 Lab)
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 I) 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. NOTE: This course will no longer be taught beginning Fall 2018.
Prerequisite(s): Reading level 6, Math level 6, Writing level 6
Course Type: Technical

INTC 2345 Advanced Analyzers  3 Credits  (2 Lec, 2 Lab)
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.
Prerequisite(s): Department Chair Approval and INTC 1348 and 1375; Reading level 7, Math level 6, Writing level 6.
Course Type: Technical

INTC 2359 Distributed Control Systems  3 Credits  (2 Lec, 2 Lab)
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.
Prerequisite(s): INTC 1315, Reading level 6, Math level 6, Writing level 6
Course Type: Technical

INTC 2374 Physical Properties Analyzers  3 Credits  (2 Lec, 2 Lab)
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.
Prerequisite(s): Department Chair Approval and INTC 1348 and INTC 1375. Reading level 6, Math level 6, Writing level 6.
Course Type: Technical

INTC 2388 Internship Instrumentation Technology/Technician  3 Credits  (0 Lec, 18 Lab)
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(s): department chair approval. Reading level 6, Math level 6, Writing level 6.
Course Type: Technical
**INTERIOR DESIGN (INDS)**

**INDS 1311  Fundamental of Interior Design  3 Credits  (2 Lec, 4 Lab)**
This course is an introduction to the elements and principles of design, the interior design profession, and the interior design problem-solving process.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8
Course Type: Technical

**INDS 1315  Materials, Methods and Estimating  3 Credits  (2 Lec, 4 Lab)**
This is a study of materials, methods of construction and installation, and estimating for interior design applications.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8
Course Type: Technical

**INDS 1319  Technical Drawing for Interior Designers  3 Credits  (2 Lec, 4 Lab)**
This course is an introduction to reading and preparing technical construction drawings for interior design, including plans, elevations, details, schedules, dimensions, and lettering.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8
Course Type: Technical

**INDS 1345  Commercial Design I  3 Credits  (2 Lec, 4 Lab)**
This course is a study of design principles applied to furniture lay-out and space planning for commercial interiors.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8; and DFTG 1409
Course Type: Technical

**INDS 1349  Fundamentals of Space Planning  3 Credits  (2 Lec, 4 Lab)**
This course covers the study of residential and light commercial spaces, including programming, codes, standards, space planning, drawings and presentations.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8
Course Type: Technical

**INDS 1351  History of Interiors I  3 Credits  (2 Lec, 2 Lab)**
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.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8
Course Type: Technical

**INDS 1352  History of Interiors II  3 Credits  (2 Lec, 2 Lab)**
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.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8
Course Type: Technical

**INDS 1449  Fundamental of Space Planning  4 Credits  (3 Lec, 3 Lab)**
This course covers the study of residential and light commercial spaces, including programming, codes, standards, space planning, drawings and presentations.
Course Type: Technical

**INDS 1451  History of Interiors I  4 Credits  (4 Lec, 0 Lab)**
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.
Course Type: Technical

**INDS 1452  History of Interiors II  4 Credits  (4 Lec, 0 Lab)**
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.
Course Type: Technical

**INDS 2237  Portfolio Presentation  2 Credits  (2 Lec, 0 Lab)**
This is a course in the preparation and presentation of a comprehensive interior design portfolio, including resume preparation, employment interview skills, and goal setting.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8
Course Type: Technical

**INDS 2307  Textiles for Interior Design  3 Credits  (2 Lec, 4 Lab)**
This course covers the study of interior design textiles including characteristics, care, codes, and applications.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8
Course Type: Technical

**INDS 2313  Residential Design I  3 Credits  (2 Lec, 4 Lab)**
This course is the study of residential spaces, including the identification of client needs, programming, standards, space planning, drawings, and presentations.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8; and DFTG 1409
Course Type: Technical

**INDS 2315  Lighting for Interior Designers  3 Credits  (3 Lec, 0 Lab)**
This course is designed to teach the fundamentals of lighting design, including lamps, luminaires, lighting techniques, and applications for residential and commercial projects.
Course Type: Technical

**INDS 2321  Presentation Drawing  3 Credits  (2 Lec, 4 Lab)**
This course is an introduction to two- and three-dimensional presentations, including drawings with one- and two-point perspectives, plans, and elevations.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8
Course Type: Technical
INDS 2325 Professional Practices for Interior Design  3 Credits  (2 Lec, 4 Lab)
This course is a study of business practices and procedures for interior designers, including professional ethics, project management, marketing, and legal issues.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8; and INDS 1315.

Course Type: Technical

INDS 2335 Residential Design II  3 Credits  (2 Lec, 4 Lab)
This course is a comprehensive study of complex residential interior design problems, including advanced space planning, specifications, budgets, and presentation renderings. Perquisites: Reading level 6, Writing level 6, Math level 8; and DFTG 1409

Course Type: Technical

INDS 2386 Internship-Interior Design  3 Credits  (0 Lec, 9 Lab)
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.
Prerequisite(s): Reading level 6, Writing level 6, Math level 8

Course Type: Technical

INDS 2387 Internship-Interior Design  3 Credits  (0 Lec, 9 Lab)
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.

Course Type: Technical

INDS 2405 Interior Design Graphics  4 Credits  (3 Lec, 3 Lab)
This course offers skill development in computer-generated graphics and technical drawings for interior design applications.

Course Type: Technical

INDS 2407 Textiles for Interior Design  4 Credits  (3 Lec, 3 Lab)
This course covers the study of interior design textiles including characteristics, care, codes, and applications.

Course Type: Technical
INTERNAT BUS/LOGISTICS (IBUS)

IBUS 1300 Global Logistics Management 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

IBUS 1301 Principles of Exports 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

IBUS 1302 Principles of Imports 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

IBUS 1341 Introduction to International Supply Chain Global Management 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

IBUS 1354 International Marketing Management 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

IBUS 2335 International Business Law 3 Credits (3 Lec, 0 Lab)
This course provides study of law as it applies to international business transactions in the global political-legal environment including home country, host country, and international jurisdiction. Study of inter-relationships among laws of different countries and the legal effects on individuals and business organizations. Topics include agency agreements, international contracts and administrations, regulations of exports and imports, technology transfers, regional transactions, intellectual property, product liability, and legal organization.
Course Type: Technical

IBUS 2341 Intercultural Management 3 Credits (3 Lec, 0 Lab)
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(s): Reading Level 4.
Course Type: Technical

IBUS 2367 Practicum - Field Experience 3 Credits (0 Lec, 21 Lab)
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 individualized plan for the student, relating workforce training and experiences to the student’s general and technical course of study.
Prerequisite(s): 9 credit hours from IBUS courses - IBUS 1300, IBUS 1301, IBUS 1302, IBUS 1305, IBUS 1354, or LMGT 1345. A program GPA of at least 2.0 is required, or Department approval.
Course Type: Technical
INTL BUS/LOG-MARITIME
(LMGT)

LMGT 1319  Introduction to Business Logistics  3 Credits  (3 Lec, 0 Lab)
This course is a systems approach to managing activities associated
with traffic transportation, inventory management and control,
warehouse, packaging, order processing, and materials handling.
Course Type: Technical

LMGT 1321  Introduction to Materials Handling  3 Credits  (3 Lec, 0 Lab)
This course introduces the concepts and principles of materials
management to include inventory control and forecasting activities.
Course Type: Technical

LMGT 1323  Domestic and International Transportation Management  3
Credits  (3 Lec, 0 Lab)
This course is an overview of the principles and practices of
transportation and its role in the distribution process. Emphasis on the
physical transportation systems involved in the United States as well
as on global distribution systems. Topics include carrier responsibilities
and services, freight classifications, rates, tariffs, and public policy and
regulations. Also includes logistical geography and the development of
skills to solve logistical transportation problems and issues.
Course Type: Technical

LMGT 1325  Warehouse and Distribution Center Management  3 Credits
(3 Lec, 0 Lab)
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.
Course Type: Technical

LMGT 1345  Economics of Transportation and Distribution  3 Credits  (3
Lec, 0 Lab)
This is a study of the basic economic principles and concepts applicable
to transportation and distribution.
Course Type: Technical

LMGT 2330  International Logistics Management  3 Credits  (3 Lec, 0
Lab)
This course covers the identification of the principles and practices
involved in international distribution systems including the multinational
corporation. Attention to global strategic planning, production, supply,
manpower/labor, geography, business communications, cultural, political,
and legal issues affecting global distribution and firm/host relationships.
Course Type: Technical
INVASIVE CARDIOVASCULAR (CVTT)

**CVTT 1110 Cardiac Catheterization I** 1 Credit (1 Lec, 0 Lab)
This course includes basic life support, cardiac pharmacology, and emergency procedures as they relate to the cath lab experience. Prerequisite(s): acceptance into the Invasive Cardiovascular Technology program.
Course Type: Technical

**CVTT 1153 Catheterization Lab Fundamentals II** 1 Credit (1 Lec, 0 Lab)
This course is a continuation of Catheterization Lab Fundamentals I with emphasis on X-ray technology and interventional procedures in the cardiac cath lab. Prerequisite(s): CVTT 1472, CVTT 1304, CVTT 1307, CVTT 1313, CVTT 1110
Course Type: Technical

**CVTT 1201 Introduction to Cardiovascular Technology** 2 Credits (2 Lec, 0 Lab)
This course is an introduction to the field of invasive cardiovascular technology and the role of the cardiovascular technologist. Topics include medical terminology, ethical/legal aspects, and communication skills. Prerequisite or Co-Requisites ENGL 1301
Course Type: Technical

**CVTT 1260 Clinical I - Cardiovascular Technology/Technologist** 2 Credits (0 Lec, 12 Lab)
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(s): CVTT 1472, CVTT 1304, CVTT 1307, CVTT 1313, CVTT 1110
Course Type: Technical

**CVTT 1304 Cardiovascular Anatomy and Physiology** 3 Credits (3 Lec, 0 Lab)
This course is a study of the anatomy, physiology, and structural relationships of the human heart and vascular system. Focuses on cardiac anatomy, electrocardiology, cardiac hemodynamics, and the innervation of the heart. Prerequisite(s): Acceptance into the Invasive Cardiovascular Technology program
Course Type: Technical

**CVTT 1307 Cardiovascular Instrumentation** 3 Credits (3 Lec, 1 Lab)
This course includes basic principles, theory, and operation of cardiovascular equipment, electronics, and instrumentation. Prerequisite(s): Acceptance into the Invasive Cardiovascular Technology program
Course Type: Technical

**CVTT 1313 Catheterization Lab Fundamentals I** 3 Credits (3 Lec, 1 Lab)
This course is an introduction to the diagnostic procedures used in the cath lab. Prior didactic instruction in cardiac physiology and medical instrumentation applied to cath lab procedures including patient preparation and monitoring, angiographic equipment set-up, and the coronary angiography procedure itself. Prerequisite(s): Acceptance into the Invasive Cardiovascular Technology program
Course Type: Technical

**CVTT 1340 Cardiovascular Pathophysiology** 3 Credits (3 Lec, 0 Lab)
This course is a continuation of CVTT 1004/1304: Cardiovascular Anatomy and Physiology. Methods of hemodynamic data collection and implications in relation to cardiac diseases. Prerequisite(s): CVTT 1260, CVTT 1350, and CVTT 1153
Course Type: Technical

**CVTT 1350 Cardiac Catheterization II** 3 Credits (3 Lec, 0 Lab)
This course is a continuation of Cardiac Catheterization I. An intensive study of advanced cardiovascular diagnostic and therapeutic procedures including percutaneous transluminal coronary angioplasty and electrophysiology studies. Prerequisite(s): CVTT 1472, CVTT 1304, CVTT 1307, CVTT 1313, CVTT 1110
Course Type: Technical

**CVTT 1373 Essential Principles of Cardiovascular Technology** 3 Credits (3 Lec, 0 Lab)
This course is an overview of the field of invasive cardiovascular technology and the role of the cardiovascular technologist. Topics include medical terminology, cardiac pharmacology, cardiac patient assessment and cath lab emergency procedures. Prerequisite(s): Acceptance into the Invasive Cardiovascular Technology program
Course Type: Technical

**CVTT 1471 Principles of Radiologic Science** 4 Credits (4 Lec, 1 Lab)
This course includes effects of radiation exposure on biological systems. It includes typical medical exposure levels, methods for measuring and monitoring radiation, and methods for protecting personnel and patients from excessive exposure. Prerequisite(s): CVTT 1472, CVTT 1304, CVTT 1307, CVTT 1313, CVTT 1110
Course Type: Technical

**CVTT 1472 Patient Care in Invasive Cardiovascular Technology** 4 Credits (4 Lec, 1 Lab)
This course is an introductory cardiovascular patient care course with emphasis on patient transfer, sterile procedure, isolation precautions, patient safety measures, patient monitoring, and cardiovascular pharmacology. Prerequisite(s): Acceptance into the Invasive Cardiovascular Technology program
Course Type: Technical
CVTT 2260 Clinical I - Cardiovascular Technology/Technologist 2 Credits  (0 Lec, 12 Lab)
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(s): Acceptance into the Invasive Cardiovascular Technology program
Course Type: Technical

CVTT 2330 Advanced Cardiovascular Instrumentation 3 Credits  (3 Lec, 1 Lab)
This course is a continuation of CVTT 1307: Cardiovascular Instrumentation. Theory, calibration, operation, and clinical application of cardiovascular diagnostic instrumentation and methods of hemodynamic data collection, calculation, analysis, and implications. 
Prerequisite(s): CVTT 1350 and CVTT 1153
Course Type: Technical

CVTT 2350 Cardiovascular Professional Transition 3 Credits  (3 Lec, 0 Lab)
This course is an exploration of professional opportunities outside the cardiovascular lab. Includes non-invasive cardiology, cardiac surgical procedures, hospital administration, and professional transition. 
Prerequisite(s): CVTT 1340
Course Type: Technical

CVTT 2361 Clinical II Cardiovascular Technology/Technologist 3 Credits  (0 Lec, 18 Lab)
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(s): CVTT 1260, CVTT 1350, and CVTT 1153
Course Type: Technical

CVTT 2461 Clinical II - Cardiovascular Technology/Technologist 4 Credits  (0 Lec, 24 Lab)
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(s): CVTT 1360, CVTT 1350, CVTT 1153, CVTT 1471
Course Type: Technical

CVTT 2462 Clinical III - Cardiovascular Technology/Technologist 4 Credits  (0 Lec, 24 Lab)
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(s): CVTT 1340
Course Type: Technical
LONG TERM CARE (LTCA)

LTCA 1312  Resident Care in the Long-Term Care Facility  3 Credits  (3 Lec, 0 Lab)
This course includes a study of the delivery of services to residents of long-term care facilities including ethical considerations and quality of life issues.
Course Type: Technical

LTCA 1313  Organization and Management of Long Term Care Facilities  3 Credits  (3 Lec, 0 Lab)
This course is an overview of the functional organizational structures common to long term care facilities. Includes an examination of the role of the administrator in the organization and management of long term care facilities.
Course Type: Technical

LTCA 2310  Environment of Long-Term Care Facility  3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

LTCA 2314  Long Term Care Law  3 Credits  (3 Lec, 0 Lab)
This course is a study of federal, state, and local statutes and regulations affecting the long term care industry.
Course Type: Technical

LTCA 2315  Financial Management of Long Term Care Facilities  3 Credits  (3 Lec, 0 Lab)
This course is a study of the techniques used in the financial management of the long term care facility including special accounting requirements of Medicare, Medicaid, and other third-party payor sources. Also covers strategies to promote financial sustainability.
Course Type: Technical

LTCA 2388  Internship-Health Care Facilities Administration/Management  3 Credits  (0 Lec, 18 Lab)
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.
Course Type: Technical

LTCA 2488  Internship-Health Care Facilities Administration/Management  4 Credits  (0 Lec, 22 Lab)
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.
Course Type: Technical

LTCA 2489  Internship-Health Care Facilities Administration/Management  4 Credits  (0 Lec, 23 Lab)
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.
Course Type: Technical
MAMMOGRAPHY (MAMT)

MAMT 2333 Essentials of Mammography 3 Credits (3 Lec, 0 Lab)
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. This course includes digital mammography.
Course Type: Technical

MAMT 2363 Clinical - Mammography Technology 3 Credits (0 Lec, 10 Lab)
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(s): Graduate of a 2-year accredited medical radiography program in Radiology, ARRT certification in Radiography.
Course Type: Technical
MARITIME ADMINISTRATION (MARA)

MARA 2401 Introduction to Ships and Shipping 4 Credits (3 Lec, 2 Lab)
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(s): Reading level 7

Course Type: Academic
MARITIME TRANSPORTATION (NAUT)

NAUT 1171 Medical Care Provider 1 Credit (1 Lec, 1 Lab)
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.
Course Type: Technical

NAUT 1174 Maritime Regulation and Management 1 Credit (1 Lec, 0 Lab)
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.
Course Type: Technical

NAUT 1272 Marine Cargo Operations I 2 Credits (2 Lec, 1 Lab)
This course is an examination of passenger, containerized, roll-on/roll-off, break bulk and dry bulk cargo vessels including issues associated with the loading, carriage and discharge of passengers and cargos. Requirements of special refrigerated and dangerous cargoes, cargo loss prevention, heavy-lift operations will be discussed. Emergency procedures, passenger safety and crowd and crisis management will be explored.
Course Type: Technical

NAUT 1273 Engineering Familiarization 2 Credits (2 Lec, 1 Lab)
This course is intended for both deck and engineering ratings that have little or no experience in the engine room who served on board a vessel as part of the regular complement and covers the mandatory minimum training requirements for engineering. The training includes basic safety and pollution prevention precautions and procedures, layouts of different types of engine rooms, types of hazards and handling equipment, general operational sequence and engine terminology.
Course Type: Technical

NAUT 1274 Marine Cargo Operations II 2 Credits (2 Lec, 1 Lab)
This course is an in-depth study of the transport of bulk liquid cargoes by tankship. The course topics include: vessel design/construction, oil/chemical cargo characteristics, cargo system design, cargo pumps, loading/discharging operations, venting/vapor control systems, ballasting/deballasting operations, tank cleaning, gas freeing/enclosed space entry, inert gas systems, crude oil washing operations, oil pollution regulations and control, and tanker safety. It includes basic safety and pollution prevention precautions and procedures, layouts of different types of oil tankers, types of cargo, their hazards and their handling equipment, general operational sequence and oil tanker terminology. The course takes full account of the annex to resolution 10 adopted by the International Conference on Training and Certification of Seafarers, 1978. Any applicant successfully completing this course will satisfy the training requirements of 46 CFR for an endorsement as Tankerman PIC Barge-Dangerous Liquids.
Course Type: Technical

NAUT 1276 Seamanship II 2 Credits (2 Lec, 1 Lab)
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.
Prerequisite(s): NAUT 1372
Course Type: Technical

NAUT 1372 Seamanship I 3 Credits (3 Lec, 1 Lab)
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.
Course Type: Technical

NAUT 1374 Basic Safety and Survival 3 Credits (2 Lec, 2 Lab)
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 Lifeboatman by the U.S. Coast Guard. Hands on training will includes time on a fire training field, work in pools with life rafts and survival gear and launching and rowing a lifeboat.
Course Type: Technical

NAUT 1471 Introduction to Ships and Shipping 4 Credits (4 Lec, 0 Lab)
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(s): Reading level 4
Course Type: Technical

NAUT 2171 Upgrade to Apprentice Mate 1 Credit (1 Lec, 0 Lab)
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).
Course Type: Technical

NAUT 2272 Radar Observer Unlimited 2 Credits (2 Lec, 1 Lab)
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.
Course Type: Technical
NAUT 2274 Basic Stability and Ship Construction 2 Credits (2 Lec, 1 Lab)
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.
Course Type: Technical

NAUT 2278 Bridge Resource Management and Shiphandling 2 Credits (2 Lec, 1 Lab)
This course covers Bridge Watchstanding. Integration of Navigation, communications and seamanship in BRM training required under the International Convention on the Standards for Training, and Certification of Watchkeepers, using simulator based teaching techniques. 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.
Course Type: Technical

NAUT 2364 Practicum 3 Credits (0 Lec, 30 Lab)
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): NAUT 1374
Course Type: Technical

NAUT 2365 Practicum 3 Credits (0 Lec, 30 Lab)
This is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Course Type: Technical

NAUT 2374 Practicum 3 Credits (0 Lec, 30 Lab)
This course is a practicum, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): NAUT 1374
Course Type: Technical

NAUT 2375 Practicum 3 Credits (0 Lec, 30 Lab)
This is a practicum, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Course Type: Technical

NAUT 2471 Terrestrial and Coastal Navigation 4 Credits (3 Lec, 2 Lab)
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.
Course Type: Technical

NAUT 2472 Integrated Operations for the Master Mariner 4 Credits (3 Lec, 2 Lab)
This is 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.
Course Type: Technical
MASSAGE THERAPY (MSSG)

MSSG 1105 Hydrotherapy 1 Credit (0 Lec, 2 Lab)
This course is a study of the use of accepted hydrotherapy and holistic healthcare modalities of external application of temperature for its reflexive effect. Prerequisites or Co-requisite(s): Courses taken in level sequence order or department chair approval, 32 contact hours
Course Type: Technical

MSSG 1109 Health and Hygiene 1 Credit (1 Lec, 1 Lab)
The 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-requisite(s): Courses taken in level sequence order or department chair approval, 32 contact hours
Course Type: Technical

MSSG 1411 Massage Therapy Fundamentals I 4 Credits (2 Lec, 6 Lab)
This course is an introduction to the theory and the application of skills necessary to perform basic massage skills. Prerequisites or Co-requisite(s): Courses taken in level sequence order or department chair approval, 128 contact hours
Course Type: Technical

MSSG 1413 Anatomy and Physiology for Massage 4 Credits (3 Lec, 2 Lab)
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. Prerequisites or Co-requisite(s): Courses taken in level sequence order or department chair approval, 80 contact hours
Course Type: Technical

MSSG 2186 Internship-Massage Therapy/Therapeutic Massage 1 Credit (0 Lec, 5 Lab)
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.
Course Type: Technical

MSSG 2311 Massage Therapy Fundamentals II 3 Credits (1 Lec, 4 Lab)
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-requisite(s): Courses taken in level sequence order or department chair approval, 80 contact hours
Course Type: Technical

MSSG 2313 Kinesiology for Massage 3 Credits (2 Lec, 2 Lab)
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. Prerequisites or Co-requisite(s): Courses taken in level sequence order or department chair approval, 64 contact hours
Course Type: Technical

MSSG 2314 Pathology for Massage 3 Credits (3 Lec, 0 Lab)
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. Prerequisites or Co-requisite(s): Courses taken in level sequence order or department chair approval, 48 contact hours
Course Type: Technical

MSSG 2313 Kinesiology for Massage 4 Credits (4 Lec, 0 Lab)
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. Prerequisites or Co-requisite(s): Courses taken in level sequence order or department chair approval, 64 contact hours
Course Type: Technical

San Jacinto College 2019-2020
MATH 0104 NCBO Preparation for Academic Mathematics 1 Credit (1 Lec, 0 Lab)
This NCBO supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving. Prerequisite(s): Math level 6, Reading level 7.

Course Type: College Prep

MATH 0111 NCBO for Algebraic Pathways 1 Credit (1 Lec, 0 Lab)
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. Prerequisite(s): Math level 6; Co-Requisite: MATH 1314 or MATH 1324

Course Type: College Prep

MATH 0132 NCBO Developmental Mathematics 1 Credit
This 1 contact hour NCBO course is intended for students who nearly place into a transfer-level math course and are on a non-algebraic Math pathway. This NCBO supports students in developing skills, strategies, and reasoning needed to succeed in Mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving (the use of an online software package may be required). Prerequisite(s): Reading Level 4, Math Level 6; Co-Requisite: MATH 1332 or MATH 1342 (1:1-0).

Course Type: College Prep

MATH 0314 Algebraic Foundations 3 Credits (3 Lec, 1 Lab)
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. Prerequisite(s): A grade of C or better is required for MATH 0104 or MATH level 6, Reading level 7.

Course Type: College Prep

MATH 0324 Foundations in Business and Social Sciences 3 Credits (3 Lec, 0 Lab)
This course is the study of the basic algebraic concepts necessary for success in MATH 1324 (Math for Business and Social Sciences), to include exponent rules, radical and rational expressions, and the solution of equations and inequalities. This course is not applicable toward any degree. Prerequisite(s): Math level 6, Reading level 7.

Course Type: College Prep

MATH 0332 Foundations of Mathematical Reasoning 3 Credits (3 Lec, 0 Lab)
This course is a study of the basic concepts necessary for success in MATH 1332 to include numeracy, proportional reasoning, probabilistic reasoning to assess risk, quantitative reasoning in personal finance and civic life, algebraic competence, reasoning, modeling, probability, collection and interpretation of data. This course is not applicable towards any degree. Prerequisite(s): Reading level 7, Math level 4

Course Type: College Prep

MATH 0342 Foundations in Statistics 3 Credits (3 Lec, 0 Lab)
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, modeling, probability, collection and interpretation of data. This course is not applicable towards any degree. Prerequisite(s): Reading level 7, Math level 4

Course Type: College Prep

MATH 1314 College Algebra 3 Credits (3 Lec, 0 Lab)
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. A grade of C or better is required for MATH 0314 or MATH 0324. Prerequisite(s): Math level 9.

Course Type: Academic

MATH 1316 Plane Trigonometry 3 Credits (3 Lec, 0 Lab)
This course consists of 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. The content in this course is intended for students in the maritime transportation technical program. A grade of C or better is required for MATH 0314. Prerequisite(s): Math level 9.

Course Type: Academic

MATH 1324 Mathematics for Business and Social Sciences 3 Credits (3 Lec, 0 Lab)
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. A grade of C or better is required for MATH 0314 or MATH 0324. Prerequisite(s): Math level 9.

Course Type: Academic
MATH 1325  Calculus for Business and Social Sciences  3 Credits  (3 Lec, 0 Lab)
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(s): MATH 1314 or MATH 1324 (The content of MATH 1325 is expected to be below the content level of MATH 2413)

Course Type: Academic

MATH 1332  Contemporary Mathematics (Quantitative Reasoning)  3 Credits  (3 Lec, 0 Lab)
This course contains topics that include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered. A grade of C or better is required for MATH 0332 or MATH 0342. Prerequisite(s): Math level 8.

Course Type: Academic

MATH 1342  Elementary Statistical Methods (Statistics)  3 Credits  (3 Lec, 0 Lab)
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. A grade of C or better is required for MATH 0342 or MATH 0332. Prerequisite(s): Math level 8.

Course Type: Academic

MATH 1350  Mathematics for Teachers I (Fundamentals of Mathematics I)  3 Credits  (3 Lec, 0 Lab)
This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the conceptual development of the following: sets, functions, numeration systems, number theory, and properties of the various number systems with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek EC-8 teacher certification. Prerequisite(s): MATH 1314

Course Type: Academic

MATH 1351  Mathematics for Teachers II (Fundamentals of Mathematics II)  3 Credits  (3 Lec, 0 Lab)
This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the concepts of geometry, measurement, probability, and statistics with an emphasis on problem solving and critical thinking. Prerequisite(s): MATH 1314 or approval by department chair

Course Type: Academic

MATH 2318  Linear Algebra  3 Credits  (3 Lec, 0 Lab)
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(s): MATH 2414

Course Type: Academic

MATH 2320  Differential Equations  3 Credits  (3 Lec, 0 Lab)
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(s): MATH 2414

Course Type: Academic

MATH 2412  Pre-Calculus Math  4 Credits  (4 Lec, 0 Lab)
This course is an in-depth combined study of algebra, trigonometry, and other topics for calculus readiness. Prerequisite(s): MATH 1314 or approval by department chair

Course Type: Academic

MATH 2413  Calculus I  4 Credits  (4 Lec, 0 Lab)
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(s): MATH 2412 or equivalent preparation

Course Type: Academic

MATH 2414  Calculus II  4 Credits  (4 Lec, 0 Lab)
This course covers differentiation and integration of transcendental functions, parametric equations and polar coordinates, techniques of integration, sequences and series, improper integrals. Prerequisite(s): MATH 2413

Course Type: Academic

MATH 2415  Calculus III  4 Credits  (4 Lec, 0 Lab)
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(s): MATH 2414

Course Type: Academic
MEDICAL ASSISTING (MDCA)

MDCA 1202 Human Disease/Pathology 2 Credits
Course Type: Technical

MDCA 1205 Medical Law and Ethics 2 Credits (2 Lec, 0 Lab)
This course covers instruction in principles, procedures, and regulations involving legal and ethical relationships among physicians, patients, and medical assistants in ambulatory care settings.
Course Type: Technical

MDCA 1208 Anatomy Physiology 2 Credits
Course Type: Technical

MDCA 1254 Medical Assisting Credentialing Exam Review 2 Credits (1 Lec, 2 Lab)
This is a preparation for the Certified Medical Assistant (American Association of Medical Assistants) or Registered Medical Assistant (American Medical Technologists) credentialing exam.
Course Type: Technical

MDCA 1302 Human Disease/Pathophysiology 3 Credits (3 Lec, 0 Lab)
This is a study of anatomy and physiology with emphasis on human pathophysiology, including etiology, prognosis, medical treatment, signs and symptoms of common diseases of all body systems.
Course Type: Technical

MDCA 1309 Anatomy and Physiology for Medical Assistants 3 Credits (3 Lec, 1 Lab)
This course emphasizes structure and function of human cells, tissues, organs, and systems with overview of common pathophysiology.
Course Type: Technical

MDCA 1310 Medical Assistant Interpersonal and Communication Skills 3 Credits (3 Lec, 0 Lab)
This course emphasizes the application of basic psychological principles and the study of behavior as they apply to special populations. Topics include procedures for self-understanding and social adaptability in interpersonal communication with patients and co-workers in an ambulatory care setting.
Course Type: Technical

MDCA 1313 Medical Terminology 3 Credits (3 Lec, 0 Lab)
This is a study and practical application of a medical vocabulary system. Includes structure, recognition, analysis, definition, spelling, pronunciation, and combination of medical terms from prefixes, suffixes, roots and combining forms.
Course Type: Technical

MDCA 1343 Medical Insurance 3 Credits (2 Lec, 2 Lab)
This course emphasizes medical office coding procedures for payment and reimbursement by patient or third party payers for ambulatory care settings.
Course Type: Technical

MDCA 1417 Procedures in a Clinical Setting 4 Credits (2 Lec, 4 Lab)
This course emphasizes patient assessment, examination, and treatment as directed by physicians. It includes vital signs, collection and documentation of patient information, asepsis, office clinical procedures, and other treatments as appropriate for ambulatory care settings.
Prerequisite(s): MDCA 1421
Course Type: Technical

MDCA 1421 Administrative Procedures 4 Credits (2 Lec, 6 Lab)
This course focuses on medical office procedures including appointment scheduling, medical records creation and maintenance, interpersonal communications, bookkeeping tasks, coding, billing, collecting, third party reimbursement, credit arrangements, and computer use in the medical office.
Course Type: Technical

MDCA 1448 Pharmacology and Administration of Medications 4 Credits (3 Lec, 3 Lab)
This course covers instruction in concepts and application of pharmacological principles. It focuses on drug classifications, principles and procedures of medication administration, mathematical systems and conversions, calculation of drug problems, and medico-legal responsibilities of the medical assistant.
Course Type: Technical

MDCA 1560 Clinical - Medical/Clinical Assistant 5 Credits (0 Lec, 15 Lab)
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.
Prerequisite(s): MDCA 1417
Course Type: Technical
MEDICAL IMAGING (CTMT)

CTMT 2332 Principles of Computed Tomography 3 Credits (3 Lec, 0 Lab)
This course is an in-depth coverage of computed tomography imaging techniques. Image quality assurance and radiation protection are emphasized.
Prerequisite(s): ARRT certification in radiography and acceptance into the program.
Course Type: Technical

CTMT 2336 Computed Tomography Equipment and Methodology 3 Credits (3 Lec, 0 Lab)
This course consists of: skill development in the operation of computed tomographic equipment, focusing on routine protocols, image quality, quality assurance, and radiation protection. Theory and application of computed tomographic equipment and the principles of patient imaging techniques utilizing the equipment are covered. Prerequisite or Co-requisite(s): CTMT 2332 and CTMT 2360.
Course Type: Technical

CTMT 2360 Clinical 1 - Computed Tomography Technology/Technician 3 Credits (0 Lec, 9 Lab)
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(s): ARRT certification in radiography with program approval; Prerequisite or Co-requisite(s): CTMT 2332
Course Type: Technical

CTMT 2361 Clinical 2 - Computed Tomography Technology/Technician 3 Credits (0 Lec, 12 Lab)
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(s): ARRT certified with Instructor approval, and Prerequisite or Co-requisite(s): CTMT 2336
Course Type: Technical

CTMT 2461 Clinical 2 - Computed Tomography Technology/Technician 3 Credits (0 Lec, 16 Lab)
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Direct supervision is provided by the clinical professional. Prerequisite or Co-requisite(s): CTMT 2360 and CTMT 2336
Course Type: Technical
MEDICAL IMAGING (DMSO)

DMSO 1110 Introduction to Sonography 1 Credit (1 Lec, 0 Lab)
This course provides an introduction to the profession of sonography and the role of the sonographer. Emphasis is on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations and history of the profession.
Prerequisite(s): Acceptance into the program
Course Type: Technical

DMSO 1166 Practicum I - Diagnostic Medical Sonography 1 Credit (0 Lec, 7 Lab)
This is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Course Type: Technical

DMSO 1251 Sonographic Sectional Anatomy 2 Credits (2 Lec, 1 Lab)
This course covers sectional anatomy of the male and female body. It includes anatomical relationships of organs, vascular structures, and body planes and quadrants.
Course Type: Technical

DMSO 1266 Practicum II - Diagnostic Medical Sonography 2 Credits (0 Lec, 16 Lab)
This is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): DMSO 1110, 1302, 1441, 1251.
Course Type: Technical

DMSO 1267 Practicum III - Diagnostic Medical Sonography 2 Credits (0 Lec, 18 Lab)
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Course Type: Technical

DMSO 1302 Basic Ultrasound Physics 3 Credits (3 Lec, 1 Lab)
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.
Prerequisite(s): Acceptance into the ultrasound program
Course Type: Technical

DMSO 1342 Intermediate Ultrasound Physics 3 Credits (3 Lec, 1 Lab)
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(s): Departmental approval required.
Course Type: Technical

DMSO 1355 Sonographic Pathophysiology 3 Credits (3 Lec, 1 Lab)
The course covers pathology and pathophysiology of the abdominal structures visualized with ultrasound. Includes abdomen, pelvis, and superficial structures.
Prerequisite(s): DMSO 1251, 1110, 1302, 1441
Course Type: Technical

DMSO 1367 Practicum IV - Diagnostic Medical Sonography 3 Credits (0 Lec, 24 Lab)
This is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Course Type: Technical

DMSO 1441 Abdominopelvic Sonography 4 Credits (3 Lec, 4 Lab)
This course covers normal anatomy and physiology of the abdominal and pelvic cavities as related to scanning techniques, transducer selection, and scanning protocols.
Prerequisite(s): Departmental approval required.
Course Type: Technical

DMSO 2230 Advanced Ultrasound and Review 2 Credits (1 Lec, 4 Lab)
This course provides knowledge, skills, and professional values within a legal and ethical framework addressing emerging technologies and professional development.
Course Type: Technical

DMSO 2245 Advanced Sonography Practices 2 Credits (2 Lec, 0 Lab)
This course covers exploration of advanced sonographic procedures and emerging ultrasound applications.
Course Type: Technical

DMSO 2253 Sonography of Superficial Structures 2 Credits (2 Lec, 1 Lab)
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(s): Departmental approval required.
Course Type: Technical

DMSO 2320 Sonography of High Risk Obstetrics 3 Credits (3 Lec, 1 Lab)
This course covers maternal disease and fetal abnormalities. Includes scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols.
Prerequisite(s): DMSO 1260, 1210, 2405.
Course Type: Technical

DMSO 2342 Sonography of Obstetrics/Gynecology 4 Credits (3 Lec, 3 Lab)
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(s): Departmental approval required.
Course Type: Technical
MEDICAL IMAGING (MRIT)

**MRIT 2330  Principles of Magnetic Resonance Imaging  3 Credits  (3 Lec, 0 Lab)**
This course is an in-depth coverage of magnetic resonance imaging techniques. Image quality assurance and safety protocols are emphasized.
Prerequisite(s): ARRT registered or registry eligible, or department approval.
Course Type: Technical

**MRIT 2334  Magnetic Resonance Equipment and Methodology  3 Credits  (3 Lec, 0 Lab)**
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.
Prerequisite(s): RADR 2340, MRIT 2360, MRIT 2330, or departmental approval.
Course Type: Technical

**MRIT 2360  Clinical I - Radiologic Technology/Science - Radiographer  3 Credits  (0 Lec, 18 Lab)**
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(s): ARRT registered or registry eligible or departmental approval.
Course Type: Technical

**MRIT 2461  Clinical II - Radiologic Technology/Science - Radiographer  4 Credits  (0 Lec, 20 Lab)**
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.
Course Type: Technical
MEDICAL IMAGING (RADR)

RADR 1201 Introduction to Radiography 2 Credits (2 Lec, 0 Lab)
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(s): Reading level 7. Prerequisite or Co-requisite(s): ENGL 1301
Course Type: Technical

RADR 1202 Radiographic Image Evaluation I 2 Credits (2 Lec, 1 Lab)
This course is the study of the scientific process of radiographic image evaluation.
Prerequisite(s): Completion of all second semester RADR courses; concurrent enrollment in RADR 1313 and RADR 2401
Course Type: Technical

RADR 1203 Patient Care 2 Credits (2 Lec, 1 Lab)
This course is an introduction in patient assessment, infection control procedures, emergency and safety procedures, communication and patient interaction skills, and basic pharmacology.
Prerequisite(s): Acceptance into the Medical Radiography Program.
Course Type: Technical

RADR 1213 Principles of Radiographic Imaging I 2 Credits (2 Lec, 1 Lab)
This course is the study of radiographic image quality and the effects of exposure variables.
Prerequisite(s): RADR 2209, 1311, 1202, 1203, 1166
Course Type: Technical

RADR 1250 Radiographic Image Evaluation II 2 Credits (2 Lec, 1 Lab)
This course is the study of the assessment of radiographic images.
Prerequisite(s): Completion of all second semester RADR courses. Concurrent enrollment in RADR 2401 and RADR 1266.
Course Type: Technical

RADR 1266 Practicum 2 Credits (0 Lec, 16 Lab)
This course offers practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): Completion of all first semester RADR courses. Concurrent enrollment in RADR 1203 and RADR 1411.
Course Type: Technical

RADR 1267 Practicum 2 Credits (0 Lec, 16 Lab)
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(s): Completion of all second semester RADR courses. Concurrent enrollment in RADR 1266 and RADR 2401.
Course Type: Technical

RADR 1311 Basic Radiographic Procedures 3 Credits (2 Lec, 3 Lab)
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(s): Acceptance into the Medical Radiography Program
Course Type: Technical

RADR 1313 Principles of Radiographic Imaging I 3 Credits (3 Lec, 1 Lab)
This course is the study of radiographic image quality and the effects of exposure variables.
Prerequisite(s): Completion of all first semester RADR courses; concurrent enrollment in RADR 2209 and 1411
Course Type: Technical

RADR 1411 Basic Radiographic Procedures 4 Credits (3 Lec, 3 Lab)
This course is an introduction to radiographic positioning terminology, the manipulation of equipment, positioning and alignment of the anatomic structure and equipment, and evaluation of images for demonstration of basic anatomy.
Prerequisite(s): Acceptance into the Medical Radiography Program

RADR 2209 Radiographic Imaging Equipment 2 Credits (2 Lec, 1 Lab)
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(s): Acceptance into the Medical Radiography Program
Course Type: Technical

RADR 2217 Radiographic Pathology 2 Credits (2 Lec, 0 Lab)
This course is the study of the disease processes and their appearance on radiographic images.
Prerequisite(s): RADR 2233, 2313, 2266
Course Type: Technical

RADR 2233 Advanced Medical Imaging 2 Credits (2 Lec, 0 Lab)
This course is an exploration of specialized imaging modalities. Includes concepts and theories of equipment operations and their integration for medical diagnosis.
Prerequisite(s): Completion of all third semester RADR courses. Concurrent enrollment in RADR 1267 and RADR 2305.
Course Type: Technical

RADR 2236 Special Patient Applications 2 Credits (2 Lec, 1 Lab)
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.
Prerequisite(s): Completion of all first semester RADR courses. Concurrent enrollment in RADR 1203 and RADR 1411.
Course Type: Technical
RADR 2266 Practicum 2 Credits (0 Lec, 20 Lab)
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(s): Completion of all third semester RADR courses. Concurrent enrollment in RADR 1267 and RADR 2331.
Course Type: Technical

RADR 2267 Practicum 2 Credits (0 Lec, 20 Lab)
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(s): RADR 2266, 2313, 2233
Course Type: Technical

RADR 2301 Intermediate Radiographic Procedures 3 Credits (2 Lec, 3 Lab)
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.
Prerequisite(s): RADR 1311, 1166, 1202, 1203, 2209
Course Type: Technical

RADR 2305 Principles of Radiographic Imaging II 3 Credits (3 Lec, 1 Lab)
This is a continuation of Radiographic image quality and the effects of exposure variables, and the synthesis of all variables in image production.
Prerequisite(s): Completion of all second semester RADR courses. Concurrent enrollment in RADR 1313 and RADR 1266.
Course Type: Technical

RADR 2313 Radiation Biology and Protection 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Completion of all third semester RADR courses. Concurrent enrollment in RADR 1267 and RADR 2331.
Course Type: Technical

RADR 2331 Advanced Radiographic Procedures 3 Credits (2 Lec, 2 Lab)
This course is a continuation of positioning and alignment of anatomic structures and equipment, evaluation of images for demonstration of anatomy and related pathology.
Prerequisite(s): Completion of all second semester RADR courses. Concurrent enrollment in RADR 2401 and RADR 1266.
Course Type: Technical

RADR 2333 Advanced Medical Imaging 3 Credits (3 Lec, 0 Lab)
This course covers specialized imaging modalities. Includes concepts and theories of equipment operations and their integration for medical diagnosis.
Prerequisite(s): RADR 2360 and 2309
Course Type: Technical
MEDICAL LABORATORY TECH (MLAB)

MLAB 1101 Introduction to Clinical Laboratory Science 1 Credit (1 Lec, 1 Lab)
This course is an introduction to medical laboratory science, structure, equipment and philosophy.
Course Type: Technical

MLAB 1227 Coagulation 2 Credits (2 Lec, 1 Lab)
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(s): MLAB 1101
Course Type: Technical

MLAB 1231 Parasitology/Mycology 2 Credits (2 Lec, 1 Lab)
This course 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(s): MLAB 2434
Course Type: Technical

MLAB 1235 Immunology/Serology 2 Credits (2 Lec, 1 Lab)
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.
Co-requisite(s): MLAB 1101
Course Type: Technical

MLAB 1311 Urinalysis and Body Fluids 3 Credits (2 Lec, 2 Lab)
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(s): a student must enroll in the medical laboratory technology program.
Course Type: Technical

MLAB 1415 Hematology 4 Credits (3 Lec, 4 Lab)
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.
Co-requisite: MLAB 1101
Co-requisite(s): a student must have been accepted into the medical laboratory technology program or have permission from the department chair. MLAB 1101
Course Type: Technical

MLAB 2166 Practicum I-Medical Laboratory Technician 1 Credit (0 Lec, 9 Lab)
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.
Prerequisite(s): MLAB 1311 and MLAB 1415 and MLAB 1227
Course Type: Technical

MLAB 2238 Advanced Topic in Medical Laboratory Technician 2 Credits (2 Lec, 0 Lab)
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.
Course Type: Technical

MLAB 2266 Practicum II-Medical Laboratory Technician 2 Credits (0 Lec, 16 Lab)
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.
Prerequisite(s): MLAB 2431 and MLAB 2434
Course Type: Technical

MLAB 2267 Practicum III-Medical Laboratory Technician 2 Credits (0 Lec, 16 Lab)
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.
Prerequisite(s): MLAB 2401
Course Type: Technical

MLAB 2321 Molecular Diagnostics for Clinical Laboratory Science 3 Credits (2 Lec, 2 Lab)
This course is a comprehensive overview of the fundamental principles of clinical molecular diagnostics and explores the use of molecular techniques in diagnosis of disease.
Course Type: Technical

MLAB 2401 Clinical Chemistry 4 Credits (3 Lec, 4 Lab)
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.
Course Type: Technical

MLAB 2431 Immunohematology 4 Credits (3 Lec, 4 Lab)
This course is a study of blood antigens and antibodies. Presents quality control/basal 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.
Course Type: Technical
MLAB 2434  Clinical Microbiology  4 Credits  (3 Lec, 4 Lab)
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(s): MLAB 1101 or department chair approval

Course Type: Technical
MENTAL HEALTH SERVICES (CMSW)

CMSW 1341  Behavior Modification with Cognitive Disorder  3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical
MENTAL HEALTH SERVICES (DAAC)

DAAC 1264 Practicum - Substance Abuse/Addiction Counseling (Prevention) 2 Credits (0 Lec, 14 Lab)
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Course Type: Technical

DAAC 1304 Pharmacology of Addiction 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

DAAC 1311 Counseling Theories 3 Credits (3 Lec, 0 Lab)
This is an examination of the major theories and current treatment modalities used in the field of counseling.
Course Type: Technical

DAAC 1317 Basic Counseling Skills 3 Credits (3 Lec, 0 Lab)
This course is an overview and application of the basic counseling skills.
Course Type: Technical

DAAC 1319 Substance-Related and Addictive Disorders 3 Credits (3 Lec, 0 Lab)
This course is an overview of causes and consequences of substance-related and addictive disorders, the major drug classifications, and the counselor’s code of ethics.
Course Type: Technical

DAAC 2306 Substance Abuse Prevention I 3 Credits (3 Lec, 0 Lab)
This course is an examination of substance use disorder prevention.
Course Type: Technical

DAAC 2307 Addicted Family Intervention 3 Credits (3 Lec, 0 Lab)
This is an examination of family systems focusing on the effects of addiction and recovery.
Course Type: Technical

DAAC 2341 Counseling Alcohol and Other Drug Addictions 3 Credits (3 Lec, 0 Lab)
This is an advanced examination of skills, confidentiality, and ethical guidelines applied in the counseling, treatment, and recovery of substance use disorders.
Course Type: Technical

DAAC 2353 Substance Abuse Prevention II 3 Credits (3 Lec, 0 Lab)
This course is an in-depth exploration of research, evaluation methods and best practices in prevention program design.
Course Type: Technical

DAAC 2366 Practicum - Substance Abuse/Addiction Counseling 3 Credits (0 Lec, 21 Lab)
This course is a practicum, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): must complete 28 hours in the program before the practicum
Course Type: Technical

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MENTAL HEALTH SERVICES (PMHS)

PMHS 2366 Practicum-Mental Health Services Technician 3 Credits  (0 Lec, 21 Lab)
This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): must complete 28 hours in the program before the practicum

Course Type: Technical
MENTAL HEALTH SERVICES (PSYT)

PSYT 1371 Mental Health Legal and Ethical Issues 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Technical

PSYT 1372 Basic Nursing Skills for Psychiatric Technicians 3 Credits (3 Lec, 0 Lab)
This course is a mastery of entry level nursing skills and competencies for a variety of health care settings. It utilizes the nursing process as the foundation for all nursing interventions with specific focus on mental health/psychiatric facilities.
Course Type: Technical

PSYT 1471 Basic Nursing Skills for Mental Health/Psychiatric Technicians 4 Credits (2 Lec, 4 Lab)
This course is a mastery of entry level nursing skills and competencies for a variety of health care settings. It utilizes the nursing process as the foundation for all nursing interventions specific to mental health/psychiatric facilities.
Prerequisite(s): Reading level 6 and Writing level 6
Course Type: Technical

PSYT 2301 Psychology of Group Dynamics 3 Credits (3 Lec, 0 Lab)
This course is an exploration of group counseling skills, techniques, stages of group development, and confidentiality and ethics.
Prerequisite(s): PSYC 2301
Course Type: Technical

PSYT 2331 Abnormal Psychology 3 Credits (3 Lec, 0 Lab)
This is an examination and assessment of the symptoms, etiology, and treatment procedures of mental, emotional and behavioral disorders.
Course Type: Technical
MENTAL HEALTH SERVICES (SCWK)

SCWK 1313  Introduction to Social Work  3 Credits  (3 Lec, 0 Lab)
This course is an overview of the social work profession and introduction to the terms, concepts, people, and critical events that have shaped the profession.
Course Type: Technical

SCWK 2301  Assessment and Case Management  3 Credits
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. (3:3:0).
Course Type: Technical
MICROSCOPIC TISSUE ANAT
(HLAB)

HLAB 1401  Introduction to Histotechnology  4 Credits  (3 Lec, 2 Lab)
This course provides an introduction to the healthcare environment and the histology laboratory. This includes laboratory safety and infection control; healthcare professionals; medical terminology; basic anatomy and physiology; laboratory mathematics; communication; and ethics, legal, and professional issues.
Prerequisite(s): Acceptance into the Microscopic Tissue Anatomy Program
Course Type: Technical

HLAB 1402  Histotechnology I  4 Credits  (3 Lec, 3 Lab)
This course is an Introduction to the basic theories and practices of histotechnology. This includes laboratory safety, fixation, tissue processing, embedding, microtomy and cryotomy, and routine staining.
Prerequisite: HLAB1401
Course Type: Technical

HLAB 1405  Functional Histology I  4 Credits  (3 Lec, 3 Lab)
This course provides recognition, composition, and function of cells, cell life cycles, blood, and basic tissue types. Prequisite: HLAB 1402
Course Type: Technical

HLAB 1443  Histotechnology II  4 Credits  (3 Lec, 3 Lab)
This course provides a continuation of Histotechnology I. It introduces both theory and practice of common histochemical staining techniques. Topics include laboratory safety; laboratory mathematics and reagent preparation; basic tissue/dye bonding; differentiation and quality control; and nuclear, connective tissue, and carbohydrate staining techniques.
Prerequisite(s): HLAB1460
Course Type: Technical

HLAB 1446  Functional Histology II  4 Credits  (3 Lec, 3 Lab)
This course is a continuation of Functional Histology I with emphasis on the recognition, composition, and function of organ systems. It includes skeletal tissues, central nervous system, circulatory system, endocrine glands, and reproductive system.
Course Type: Technical

HLAB 1460  Clinical I - Histologic Technology/Histotechnologist  4 Credits  (0 Lec, 16 Lab)
This course provides the student with 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(s): HLAB 1405
Course Type: Technical

HLAB 1461  Clinical II - Histologic Technology/Histotechnologist  4 Credits  (0 Lec, 20 Lab)
This course provides 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(s): HLAB 1446
Course Type: Technical

HLAB 1462  Clinical III - Histologic Technology/Histotechnologist  4 Credits  (0 Lec, 16 Lab)
The course provides 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(s): HLAB 1461
Course Type: Technical

HLAB 2341  Registry Review  3 Credits  (2 Lec, 4 Lab)
This course provides a review of the major theoretical/practical applications in histotechnology. It includes fixation, processing, embedding, microtomy, frozen cryotomy, routine and special stains, tissue identification, immunohistochemistry, enzyme histochemistry, and electron microscopy. Emphasis is on employment skills, review of ethical and legal behavior, and professional development.
Prerequisite(s): HLAB 1462
Course Type: Technical
MILITARY SCI-AIR FORCE (AFSC)

AFSC 1201 Foundations of United States Air Force I 2 Credits (1 Lec, 2 Lab)
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.
Course Type: Academic

AFSC 1202 Foundations of United States Air Force II 2 Credits (1 Lec, 2 Lab)
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.
Course Type: Academic

AFSC 2201 The Evolution of USAF Air and Space Power I 2 Credits (1 Lec, 2 Lab)
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.
Course Type: Academic

AFSC 2202 The Evolution of USAF Air and Space Power II 2 Credits (1 Lec, 2 Lab)
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.
Course Type: Academic
MILITARY SCIENCE (MSCI)

MSCI 1125 Physical Readiness Training 1 Credit (0 Lec, 1 Lab)
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.
Course Type: Academic

MSCI 1126 Physical Readiness Training 1 Credit (0 Lec, 1 Lab)
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.
Course Type: Academic

MSCI 1131 Advanced Physical Fitness Course 1 Credit (0 Lec, 1 Lab)
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(s): MSCI 1125
Course Type: Academic

MSCI 1210 Introduction to ROTC 2 Credits (1 Lec, 2 Lab)
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.
Course Type: Academic

MSCI 1211 Foundations of Tactical Leadership 2 Credits (1 Lec, 2 Lab)
This course examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). This course highlights dimensions of terrain analysis, patrolling, and operation orders. Continued study of the theoretical basis of the Army leadership framework explores the dynamics of adaptive leadership in the context of military operations. This course provides a smooth transition into MSL 301. Cadets develop greater self awareness as they assess their own leadership styles and practice communication and team building skills. COE case studies give insight into the importance and practice of teamwork and tactics in real-world scenarios.
Course Type: Academic

MSCI 1220 Introduction to Leadership 2 Credits (1 Lec, 2 Lab)
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.
Course Type: Academic

MSCI 1221 Introduction to Tactical Leadership 2 Credits (1 Lec, 2 Lab)
This course overviews leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback, and using effective writing skills. You will explore dimensions of leadership values, attributes, skills, and actions in the context of practical, hands-on, and interactive exercises.
Course Type: Academic

MSCI 2210 Military Leadership Development Cr. 2 2 Credits (2 Lec, 2 Lab)
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.
Course Type: Academic

MSCI 2220 Military Leadership Development Cr. 2 2 Credits (2 Lec, 2 Lab)
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.
Course Type: Academic

MSCI 2810 Basic Camp Cr. 8 8 Credits (0 Lec, 8 Lab)
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(s): Approval of the department chairman.
Course Type: Academic
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**MUAP 2186 Music Composition 1 Credit (0.5 Lec, 0 Lab)**  
This is the third semester of compositional studies in the sequence.  
Prerequisite(s): MUAP 1187 or 1287, or consent of the department chair.  
It may be repeated for no credit. Students must have department chair approval to enroll.

Course Type: Academic

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**MUAP 2187 Music Composition 1 Credit**  
This is the fourth semester of compositional studies in the sequence.  
Prerequisite(s): MUAP 2186 or 2286, or consent of the department chair.  
It may be repeated for no credit. Students must have department chair approval to enroll.

Course Type: Academic

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MUAP 2265  Private Lessons  2 Credits
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MUAP 2266  Private Lessons  2 Credits
Course Type: Academic

MUAP 2267  Private Lessons  2 Credits
Course Type: Academic

MUAP 2268  Private Lessons  2 Credits
Course Type: Academic

MUAP 2269  Private Lessons  2 Credits
Course Type: Academic

MUAP 2270  Private Lessons  2 Credits
Course Type: Academic

MUAP 2271  Private Lessons  2 Credits
Course Type: Academic

MUAP 2272  Private Lessons  2 Credits
Course Type: Academic

MUAP 2281  Private Lessons  2 Credits
Course Type: Academic

MUAP 2282  Private Lessons  2 Credits
Course Type: Academic

MUAP 2283  Private Lessons  2 Credits
Course Type: Academic

MUAP 2284  Private Lessons  2 Credits
Course Type: Academic

MUAP 2286  Composition  2 Credits  (1 Lec, 0 Lab)
This is the third semester of compositional studies in the sequence.
Prerequisite(s): MUAP 1187 or 1287, or consent of the department chair,
may be repeated for no credit.
Course Type: Academic
Music (MUEN)

MUEN 1121 Instrumental Ensemble 1 Credit (0 Lec, 3 Lab)
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.
Course Type: Academic

MUEN 1122 Concert Band 1 Credit (0 Lec, 3 Lab)
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.
Course Type: Academic

MUEN 1124 Wind Ensemble 1 Credit (0 Lec, 3 Lab)
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.
Course Type: Academic

MUEN 1125 Jazz Ensemble 1 Credit (0 Lec, 3 Lab)
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.
Course Type: Academic

MUEN 1131 Small Instrumental Ensemble 1 Credit (0 Lec, 3 Lab)
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.
Course Type: Academic

MUEN 1141 College Choir 1 Credit (0 Lec, 3 Lab)
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.
Course Type: Academic

MUEN 1143 Concert Choir 1 Credit (0 Lec, 3 Lab)
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.
Course Type: Academic

MUEN 1154 Small Vocal Ensemble 1 Credit (0 Lec, 3 Lab)
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 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.
Course Type: Academic
MUSIC (MUSB)

MUSB 1305  Survey of Music Business  3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical
MUSIC (MUSC)

MUSC 1323 Audio Electronics Troubleshooting 3 Credits (2 Lec, 2 Lab)
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. Course Type: Technical

MUSC 1327 Audio Engineering I 3 Credits (2 Lec, 4 Lab)
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. Course Type: Technical

MUSC 1331 Musical Instrument Digital Interface 3 Credits (2 Lec, 2 Lab)
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. Course Type: Technical

MUSC 1405 Live Sound I 4 Credits (2 Lec, 4 Lab)
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. Course Type: Technical

MUSC 2101 Audio Engineering Practices 1 Credit (0 Lec, 3 Lab)
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(s): MUSC 2427 Course Type: Technical

MUSC 2355 Musical Instrument Digital Interface II 3 Credits (2 Lec, 2 Lab)
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(s): MUSC 1331 Course Type: Technical

MUSC 2386 Internship-Recording Arts Technology/Technician 3 Credits (0 Lec, 18 Lab)
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(s): MUSC 2447, MUSC 2355 Course Type: Technical

MUSC 2403 Live Sound II 4 Credits (2 Lec, 4 Lab)
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. Course Type: Technical

MUSC 2427 Audio Engineering II 4 Credits (3 Lec, 3 Lab)
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(s): MUSC 1327 Course Type: Technical

MUSC 2447 Audio Engineering III 4 Credits (3 Lec, 3 Lab)
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. Prerequisite(s): MUSC 2427 Course Type: Technical
MUSI 1110 Perspective in Jazz 1 Credit (1 Lec, 0 Lab)
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.
Course Type: Academic

MUSI 1116 Sight Singing and Ear Training I 1 Credit (0 Lec, 3 Lab)
Singing tonal music in treble and bass clefs, and aural study of elements of music, such as scales, intervals and chords, and dictation of basic rhythm, melody and diatonic harmony.
Course Type: Academic

MUSI 1117 Sight Singing and Ear Training II 1 Credit (0 Lec, 3 Lab)
Singing tonal music in various clefs, continued aural study of the elements of music, and dictation of intermediate rhythm, melody and diatonic harmony.
Course Type: Academic

MUSI 1181 Piano Class I 1 Credit (1 Lec, 1 Lab)
This course is class instruction in the fundamentals of keyboard technique for beginning piano students.
Course Type: Academic

MUSI 1182 Piano Class II 1 Credit (1 Lec, 1 Lab)
This course covers advanced beginning class instruction in the fundamentals of keyboard technique.
Course Type: Academic

MUSI 1183 Voice Class 1 Credit (1 Lec, 1 Lab)
This course is class instruction in the fundamentals of singing including breathing, tone production, and diction. Designed for students with little or no previous voice training. Does not apply to a music major degree.
Course Type: Academic

MUSI 1188 Class Percussion 1 Credit (1 Lec, 1 Lab)
This course is Class instruction in the fundamental techniques of playing percussion instruments.
Course Type: Academic

MUSI 1192 Guitar Class 1 Credit (1 Lec, 1 Lab)
This course is Class instruction in the fundamental techniques of playing guitar.
Course Type: Academic

MUSI 1303 Fundamentals of Music 3 Credits (3 Lec, 0 Lab)
This course is designed as an introduction to the basic elements of music theory, including scales, intervals, keys, triads, elementary ear training, notation, meter, and rhythm. Course does not apply to a music major degree.
Course Type: Academic

MUSI 1306 Music Appreciation 3 Credits (3 Lec, 0 Lab)
This course is an overview for understanding music through the study of cultural periods, major composers, and musical elements, illustrated with audio recordings and live performances. Course does not apply to a music major degree.
Course Type: Academic

MUSI 1307 Music Literature 3 Credits (3 Lec, 0 Lab)
This course provides a survey of the styles and forms of music as it developed from the middle ages to the present. This course will familiarize the student with cultural context, terminology, genres, and notation.
Prerequisite(s): Reading level 6
Course Type: Academic

MUSI 1310 American Music 3 Credits (3 Lec, 0 Lab)
This course covers a general survey of various styles of music of the Americas, including but not limited to jazz, folk, rock, and contemporary music.
Course Type: Academic

MUSI 1311 Music Theory I 3 Credits (3 Lec, 0 Lab)
The study of analysis and writing of tonal melody and diatonic harmony, including fundamental music concepts, scales, intervals, chords, 7th chords, and early four-part writing. Analysis of small compositional forms. Optional correlated study at the keyboard.
Course Type: Academic

MUSI 1312 Music Theory II 3 Credits (3 Lec, 0 Lab)
The study of analysis and writing of tonal melody and diatonic harmony, including all diatonic chords and sevenths chords in root position and inversions, non-chord tones, and functional harmony. Introduction to more complex topics, such as modulation, may occur. Optional correlated study at the keyboard.
Course Type: Academic

MUSI 2116 Sight Singing and Ear Training III 1 Credit (0 Lec, 3 Lab)
Singing more difficult tonal music in various clefs, aural study including dictation of more complex rhythm, melody, chromatic harmony, and extended tertian structures.
Course Type: Academic

MUSI 2117 Sight Singing Ear Training IV 1 Credit (0 Lec, 3 Lab)
Singing advanced tonal music and introduction of modal and post-tonal melodies. Aural study including dictation of advanced rhythm, melody, and harmony.
Course Type: Academic

MUSI 2181 Piano Class III 1 Credit (1 Lec, 1 Lab)
This course covers intermediate class instruction of keyboard technique.
Course Type: Academic

MUSI 2182 Piano Class IV 1 Credit (1 Lec, 1 Lab)
This course is an advanced class instruction of keyboard technique.
Course Type: Academic
MUSI 2311  Music Theory III  3 Credits  (3 Lec, 0 Lab)
Advanced harmony voice leading, score analysis and writing of more advanced tonal harmony including chromaticism and extended-tertian structures. Optional correlated study at keyboard.
Course Type: Academic

MUSI 2312  Music Theory IV  3 Credits  (3 Lec, 0 Lab)
Continuation of advanced chromaticism and survey of analytical and compositional procedures in post-tonal music. Optional correlated study at the keyboard.
Course Type: Academic
NONDESTRUCTIVE TESTING (METL)

METL 1313 Introduction to Corrosion 3 Credits (2 Lec, 2 Lab)
This course provides an introduction to internal, external, and atmospheric corrosion including terminology, causes of common corrosion problems in industry, and general remedies such as cathodic protection, protective coatings, material selection, and chemical treatments.
Course Type: Technical
NONDESTRUCTIVE TESTING (NDTE)

NDTE 1301 Film Interpretation of Weldments 3 Credits (2 Lec, 2 Lab)
This is the study of radiographic film, including exploration of radiographic basics, interpretation, and causes and effects of discontinuities.
Course Type: Technical

NDTE 1405 Introduction to Ultrasonics: Level 1 & 2 4 Credits (3 Lec, 3 Lab)
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.
Course Type: Technical

NDTE 1410 Liquid Penetrant, Magnetic Particle and Visual Testing: Level 1 & 2 4 Credits (3 Lec, 3 Lab)
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.
Course Type: Technical

NDTE 1440 Eddy Current Testing 4 Credits (3 Lec, 3 Lab)
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.
Course Type: Technical

NDTE 1454 Intermediate Ultrasonics: Flaw Detection and Sizing 4 Credits (3 Lec, 3 Lab)
This course covers applications of the ultrasonic techniques of materials testing for flaw sizing and characterization.
Prerequisite(s): NDTE 1305 or NDTE 1405
Course Type: Technical

NDTE 2339 Pressure Piping Inspection 3 Credits (2 Lec, 2 Lab)
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 vessel inspection in preparation for the API 510 certification examination.
Course Type: Technical

NDTE 2401 Advanced Ultrasonics: Phased Array and A.U.T. 4 Credits (3 Lec, 3 Lab)
Emphasis is placed on examination of components and characterization of flaws using advanced techniques.
Prerequisite(s): NDTE 1354 or NDTE 1454
Course Type: Technical

NDTE 2411 Preparation for Certified Welding Inspector Exam 4 Credits (3 Lec, 3 Lab)
This course covers welding fundamentals, welding inspection and code interpretation in preparation for the certified welding inspector examination.
Course Type: Technical

NDTE 2470 Pressure Vessel Inspection 4 Credits (3 Lec, 3 Lab)
This course in general principles of pressure vessel inspection covers American Society of Mechanical Engineers (ASME) and American Petroleum Institute (API) documents pertaining to pressure vessel inspection. Emphasis is on preparing students to take the API 510 certification exam.
Course Type: Technical
NONDESTRUCTIVE TESTING (QCTC)

QCTC 1341  Statistical Process Control  3 Credits  (2 Lec, 2 Lab)
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(s): Math level 9; and QCTC 1343 or PTAC 2314 or upon approval with previous Quality Theory experience.
Course Type: Technical

QCTC 1343  Quality Assurance  3 Credits  (2 Lec, 2 Lab)
This course provides information on principles and applications designed to introduce quality assurance.
Course Type: Technical

QCTC 1446  Testing and Inspection Systems  4 Credits  (3 Lec, 3 Lab)
This is a study of testing and inspection systems including pertinent specifications, inspection tools, gauges, instruments, and mechanisms used in illustrating the need for maintaining quality to established standards.
Course Type: Technical

QCTC 1448  Metrology and Prints  4 Credits  (3 Lec, 3 Lab)
This is the study of the terminology, methodology, and practice of measurement systems and equipment in the calibration and use of basic measuring tools.
Course Type: Technical

QCTC 2331  Standards and Codes  3 Credits  (2 Lec, 2 Lab)
This is a study of philosophy and theory of appropriate standards, organizations, and systems integration relating to the standards criteria in society.
Course Type: Technical
NURSING / RN (RNSG)

RNSG 1105 Nursing Skills I 1 Credit
The course covers the study of the concepts and principles necessary to perform basic 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.
Prerequisite(s): Admission to the nursing program. (1:0-3).
Course Type: Technical

RNSG 1108 Dosage Calculations for Nursing 1 Credit (1 Lec, 0 Lab)
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.
Course Type: Technical

RNSG 1144 Nursing Skills II 1 Credit (0 Lec, 4 Lab)
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.
Course Type: Technical

RNSG 1160 Clinical Nursing Introduction 1 Credit (0 Lec, 6 Lab)
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.
Course Type: Technical

RNSG 1215 Health Assessment 2 Credits (1 Lec, 2 Lab)
This course covers development of skills and techniques required for a comprehensive nursing health assessment within a legal/ethical framework.
Prerequisite(s): Admission to the nursing program.
Course Type: Technical

RNSG 1227 Transition to Professional Nursing 2 Credits (1 Lec, 2 Lab)
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. Pre-requisite: Admission to the ADN Transition Program.
Course Type: Technical

RNSG 1261 Clinical Nursing Common Concepts for Adult Health 2 Credits
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.
Co-requisite(s): RNSG 1341 (2:0-8).
Course Type: Technical

RNSG 1262 Clinical Nursing Complex Concepts 2 Credits (0 Lec, 6 Lab)
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.
Course Type: Technical

RNSG 1301 Pharmacology 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Department Chair Approval.
Course Type: Technical

RNSG 1341 Common Concepts of Adult Health 3 Credits (3 Lec, 0 Lab)
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.
Co-requisite(s): RNSG 1261
Course Type: Technical
RNSG 1343  Complex Concepts of Adult Health  3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

RNSG 1413  Foundations for Nursing Practice  4 Credits  (2 Lec, 6 Lab)
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(s): Department chair approval.
Course Type: Technical

RNSG 2121  Professional Nursing: Leadership and Management  1 Credit  
(1 Lec, 0 Lab)
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.
Course Type: Technical

RNSG 2130  Professional Nursing Review and Licensure Preparation  1 Credit  
(1 Lec, 0 Lab)
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.
Course Type: Technical

RNSG 2160  Clinical: Nursing Management of Client Care  1 Credit  
(0 Lec, 6 Lab)
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.
Course Type: Technical

RNSG 2163  Clinical: Concepts of Advanced Nursing Practice and Management  1 Credit  
(0 Lec, 6 Lab)
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.
Co-requisite(s): RNSG 2271
Course Type: Technical

RNSG 2201  Care of Children and Families  2 Credits
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.
Co-requisite(s): RNSG 2262 (2:1-2).
Course Type: Technical

RNSG 2208  Maternal Newborn Nursing and Women’s Health  2 Credits
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.
Co-requisite(s): RNSG 2260 (2:1-2).
Course Type: Technical

RNSG 2213  Mental Health Nursing  2 Credits
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 and 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.
Co-requisite(s): RNSG 2261 (2:1-2).
Course Type: Technical

RNSG 2231  Advanced Concepts of Adult Nursing  2 Credits  
(2 Lec, 1 Lab)
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.
Course Type: Technical

RNSG 2260  Clinical Registered Nursing  2 Credits
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.
Co-requisite(s): RNSG 2208 (2:0-8).
Course Type: Technical
RNSG 2261 **Clinical Mental Health Nursing  2 Credits**
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 work flow in mental health nursing. It provides applications of concepts of mental health, psychopathology, and treatment modalities related to nursing care of clients and their families. Practical experience is simultaneously related to theory. Clinical education is an unpaid learning experience.
Co-requisite(s): RNSG 2213 (2:0-8).

Course Type: Technical

RNSG 2262 **Clinical Nursing Care of Children and Families  2 Credits**
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.
Co-requisite(s): RNSG 2201 (2:0-8).

Course Type: Technical

RNSG 2263 **Clinical - Registered Nursing  2 Credits**
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.
Co-requisite(s): RNSG 2332 (2:0-8).

Course Type: Technical

RNSG 2332 **Enhanced Concepts of Adult Health  3 Credits**
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.
Co-requisite(s): RNSG 2263 (3:3-0).

Course Type: Technical

RNSG 2371 **Concepts of Advanced Nursing Practice and Management  3 Credits  (3 Lec, 0 Lab)**
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.
Co-requisite(s): RNSG 2163

Course Type: Technical
NURSING / VOCATIONAL (VNSG)

VNSG 1119 Leadership and Professional Development 1 Credit (1 Lec, 1 Lab)
This is a study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multidisciplinary health care team, professional organizations, and continuing education.
Prerequisite(s): Reading level 7, Writing level 7, and Math level 8.
Course Type: Technical

VNSG 1162 Clinical III - Practical Nurse 1 Credit (0 Lec, 6 Lab)
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. 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.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8.
Co-requisite(s): VNSG 1266
Course Type: Technical

VNSG 1226 Gerontology 2 Credits (2 Lec, 0 Lab)
This course is an overview of the physical, psychosocial, and cultural aspects of the aging process which addresses disease processes of aging. The course also includes an exploration of perceptions toward care of the older adult.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8.
Co-requisite(s): VNSG 1162.
Course Type: Technical

VNSG 1230 Maternal-Neonatal Nursing 2 Credits (2 Lec, 1 Lab)
This course focuses on the study of the biological, psychological, and sociological concepts applicable to basic needs of the family including childbearing 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.
Prerequisite(s): Reading level 7, Writing level 7, and Math level 8.
Co-requisite(s): VNSG 1234 and VNSG 2161
Course Type: Technical

VNSG 1234 Pediatrics 2 Credits (2 Lec, 1 Lab)
This course is the study of the care of the pediatric patient and family, during health and disease with an emphasis on growth and developmental needs utilizing the nursing process.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8, and VNSG 1429.
Co-requisite(s): VNSG 1230 and VNSG 2161
Course Type: Technical

VNSG 1260 Clinical I 2 Credits (0 Lec, 8 Lab)
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(s): Reading level 7, Writing level 7, Math level 8, admission to the VNSG program and successful completion of VNSG 1423.
Co-requisite(s): VNSG 2431
Course Type: Technical

VNSG 1261 Clinical II - Licensed Practical/Vocational Nursing Training 2 Credits (0 Lec, 8 Lab)
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(s): Reading level 7, Writing level 7, Math level 8, and Completion of all Level I courses in the VNSG program.
Co-requisite(s): VNSG 1509.
Course Type: Technical

VNSG 1301 Mental Health and Mental Illness 3 Credits (3 Lec, 0 Lab)
This course includes factors influencing mental health and mental illness including personality development, human needs, common mental mechanisms, and factors influencing mental health and mental illness. The course also includes common mental disorders and related therapy.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8, and all Level 2 courses successfully completed in the VNSG program.
Course Type: Technical

VNSG 1327 Essentials of Medication Administration 3 Credits (2 Lec, 2 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8 and admission into the VNSG program.
Course Type: Technical

VNSG 1330 Maternal-Neonatal Nursing 3 Credits (3 Lec, 0 Lab)
This course focuses on the study of the biological, psychological, and sociological concepts applicable to basic needs of the family including childbearing 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.
Prerequisite(s): Reading level 7, Writing level 7, and Math level 8 and successful completion of all Level 2 courses in the VNSG program.
Co-requisite(s): VNSG 1334 and VNSG 2161
Course Type: Technical
VNSG 1331  Pharmacology  3 Credits  (2 Lec, 2 Lab)
This course discusses the fundamentals of medications and their diagnostic, therapeutic, and curative effects. The course also includes nursing interventions utilizing the nursing process.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8 and successful completion of all Level I courses in the VNSG program.
Course Type: Technical

VNSG 1332  Medical-Surgical Nursing II  3 Credits  (3 Lec, 1 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7, and Math level 8.
Co-requisite(s): VNSG 2160
Course Type: Technical

VNSG 1334  Pediatrics  3 Credits  (3 Lec, 0 Lab)
This course is the study of the care of the pediatric patient and family, during health and disease with an emphasis on growth and developmental needs utilizing the nursing process.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8, and successful completion of all Level 2 courses in the VNSG program.
Co-requisite(s): VNSG 1330 and VNSG 1334
Course Type: Technical

VNSG 1423  Basic Nursing Skills  4 Credits  (3 Lec, 4 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8 and admission into the VNSG program.
Course Type: Technical

VNSG 1509  Nursing in Health and Illness II  5 Credits  (4 Lec, 4 Lab)
This course covers introduction to health problems requiring medical and surgical interventions. Co-requisite is VNSG 1261.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8 and successful completion of all Level 1 courses in the Vocational Nursing program.
Course Type: Technical

VNSG 2161  Clinical V - Licensed Practical/Vocational Nurse Training  1 Credit  (0 Lec, 6 Lab)
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. The clinical practice offers the student experience in the nursing care of the maternal, newborn and pediatric patients.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8 and successful completion of all Level 2 courses in the VNSG program.
Co-requisite(s): VNSG 1330 and VNSG 1334
Course Type: Technical

VNSG 2431  Advanced Nursing Skills  4 Credits  (2 Lec, 6 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8, admission to the VNSG program and successful completion of VNSG 1423.
Co-requisite(s): VNSG 1260
Course Type: Technical
OCCUPA HEALTH/SAFETY (OSHT)

OSHT 1307 Construction Site Safety and Health 3 Credits (3 Lec, 0 Lab)
This course provides an introduction to safety requirements for construction sites including occupational health and environmental controls.
Prerequisite(s): EPCT 1307; Reading level 6, Writing level 6, and Math level 6

OSHT 1309 Physical Hazards Control 3 Credits (3 Lec, 0 Lab)
This course provides a study of the physical hazards in industry and methods of workplace design and redesign to control these hazards. Emphasis is on the regulation codes and standards associated with the control of physical hazards.
Prerequisite(s): EPCT 1307; Reading level 6, Writing level 6, Math level 6

OSHT 1313 Accident Prevention, Inspection and Investigation 3 Credits (3 Lec, 0 Lab)
This course provides a basis for understanding the nature of occupational hazard recognition, accident prevention, loss reduction, inspection techniques, and accident investigation analysis.
Prerequisite(s): EPCT 1307; Reading level 6, Writing level 6, Math level 6

OSHT 1320 Energy Industrial Safety 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 6, Writing level 6, Math level 6

OSHT 1321 Fire Protection Systems 3 Credits (3 Lec, 0 Lab)
This course provides a study of fire protection systems and their applications with emphasis on the fire prevention codes and standards.
Prerequisite(s): EPCT 1307; Reading level 6, Writing level 6, Math level 6

OSHT 2305 Ergonomics and Human Factors in Safety 3 Credits (3 Lec, 0 Lab)
This course provides a study of the relationship of human behavior and ergonomics as applied to workplace safety.
Prerequisite(s): EPCT 1307, MATH 1314; Reading level 6, Writing level 6

OSHT 2309 Safety Program Management 3 Credits (3 Lec, 0 Lab)
This course examines the major safety management issues that effect the workplace including safety awareness, loss control, regulatory issues, and human behavior modifications.
Prerequisite(s): EPCT 1307. Reading level 6, Writing level 6, Math level 6

OSHT 2320 Safety Training Presentation Techniques 3 Credits (3 Lec, 0 Lab)
This course covers principles of developing and presenting effective industrial/business training. Emphasis is on instructor qualifications and responsibilities, principles of teaching including use of teaching aids, and presentation skills.
Prerequisite(s): EPCT 1307; Reading level 6, Writing level 6, and Math level 6

OSHT 2380 Cooperative Education-Occupational Safety and Health Technology 3 Credits (1 Lec, 14 Lab)
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(s): department chair approval

OSHT 2401 OSHA Regulations-General Industry 4 Credits (4 Lec, 0 Lab)
This course provides a study of Occupational Safety and Health Administration (OSHA) regulations pertinent to general industry.
Prerequisite(s): EPCT 1307; Reading level 6, Writing level 6, Math level 6
OCCUPATIONAL THERAPY (OTHA)

OTHA 1160 Clinical - Occupational Therapy Assistant 1 Credit (0 Lec, 6 Lab)
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. Students are responsible for their own transportation to clinical sites.
Course Type: Technical

OTHA 1161 Clinical - Occupational Therapy Assistant 1 Credit (0 Lec, 6 Lab)
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. Students are responsible for their own transportation to clinical sites.
Course Type: Technical

OTHA 1162 Clinical - Occupational Therapy Assistant 1 Credit (0 Lec, 6 Lab)
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. Students are responsible for their own transportation to clinical sites.
Course Type: Technical

OTHA 1241 Occupational Performance from Birth through Adolescence 2 Credits (1 Lec, 4 Lab)
This course covers occupational performance of newborns through adolescents. Includes frames of reference, evaluation tools and techniques, and intervention strategies.
Course Type: Technical

OTHA 1249 Occupational Performance of Adulthood 2 Credits (1 Lec, 4 Lab)
This course covers occupational performance of adults. Includes frames of reference, evaluation tools and techniques, and intervention strategies.
Course Type: Technical

OTHA 1253 Occupational Performance for Elders 2 Credits (1 Lec, 4 Lab)
This course covers occupational performance of elders. Includes frames of reference, evaluation tools and techniques, and intervention strategies.
Course Type: Technical

OTHA 1305 Principles of Occupational Therapy 3 Credits (2 Lec, 3 Lab)
This course is an introduction to occupational therapy including the historical development and philosophy. Emphasis on the roles of the occupational therapy assistant. Topics include occupation; occupational therapy personnel; current health care environment; and moral, legal, and ethical issues.
Course Type: Technical

OTHA 1309 Human Structure and Function in Occupational Therapy 3 Credits (2 Lec, 3 Lab)
This course is a study of the biomechanics of human motion. Emphasis on the musculoskeletal system including skeletal structure, muscles and nerves, and biomechanical assessment procedures.
Course Type: Technical

OTHA 1315 Therapeutic Use of Occupations or Activities I 3 Credits (2 Lec, 3 Lab)
This course covers various occupations or activities used as therapeutic interventions in occupational therapy. Emphasis on awareness of activity demands, contexts, adapting, grading, and safe implementation of occupations or activities.
Course Type: Technical

OTHA 1319 Therapeutic Interventions I 3 Credits (2 Lec, 3 Lab)
This course covers concepts, techniques, and assessments leading to proficiency in skills and activities used as treatment interventions in occupational therapy (OT). Emphasizes the occupational therapy assistant’s role in the OT process.
Course Type: Technical

OTHA 2209 Mental Health in Occupational Therapy 2 Credits (1 Lec, 4 Lab)
This course covers promotion of mental health and wellness through occupational therapy. Topics include theory and intervention strategies to enhance occupational performance.
Course Type: Technical

OTHA 2231 Physical Function in Occupational Therapy 2 Credits (1 Lec, 4 Lab)
This course covers physical function to promote occupational performance. Includes frames of reference, evaluative tools, intervention strategies, and consumer education.
Course Type: Technical

OTHA 2235 Health Care Management in Occupational Therapy 2 Credits (2 Lec, 0 Lab)
This course explores the roles of the occupational therapy assistant in health care delivery. Topics include documentation, reimbursement, credentialing, ethical standards, health care team role delineation, and management.
Course Type: Technical

OTHA 2266 Practicum (or Field Experience) - Occupational Therapy Assistant 2 Credits (0 Lec, 20 Lab)
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. Students are responsible for their own transportation to clinical sites.
Course Type: Technical

OTHA 2267 Practicum (or Field Experience) - Occupational Therapy Assistant 2 Credits (0 Lec, 20 Lab)
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. Students are responsible for their own transportation to clinical sites.
Course Type: Technical

OTHA 2302 Therapeutic Use of Occupations or Activities II 3 Credits (2 Lec, 3 Lab)
This course is an emphasis on advanced techniques and applications used in traditional and non-traditional practice settings.
Course Type: Technical

OTHA 2304 Neurology in Occupational Therapy 3 Credits (2 Lec, 3 Lab)
This course is a study of neuroanatomy and neurophysiology as it relates to neurological conditions commonly treated in occupational therapy.
Course Type: Technical
PARALEGAL (LGLA)

LGLA 1301 Legal Research and Writing 3 Credits (3 Lec, 0 Lab)
This course presents the fundamentals of legal research and writing emphasizing the paralegal's role including resources and processes used in legal research and writing.
Prerequisite(s): Reading Level 6; Writing Level 6
Course Type: Technical

LGLA 1303 Legal Research 3 Credits (3 Lec, 0 Lab)
This course presents legal research techniques emphasizing the paralegal's role. Topics include law library techniques, traditional hard copy legal research, computer assisted legal research, briefs, and legal memoranda.
Prerequisite(s): Reading level 6, Writing level 6
Co-requisite(s): LGLA 1307
Course Type: Technical

LGLA 1305 Legal Writing 3 Credits (3 Lec, 0 Lab)
This course emphasizes the fundamentals of legal writing techniques including case and fact analysis, citation formats, and legal writing styles emphasizing the paralegal's role in legal writing. Topics include letters, case briefs, legal memoranda, trial and appellate briefs. It is recommended students take or have taken LGLA 1303, Legal Research.
Prerequisite(s): Reading level 7, Writing level 7, LGLA 1307, ENGL 1301
Course Type: Technical

LGLA 1307 Introduction to Law and the Legal Professions 3 Credits (3 Lec, 0 Lab)
This course offers an overview of the law and the legal professions including legal concepts, systems, and terminology; substantive areas of law and the federal and state judicial systems; ethical obligations and regulations; professional trends and issues with emphasis on the paralegal's role.
Prerequisite(s): Reading level 6, Writing level 6
Course Type: Technical

LGLA 1311 Introduction to Law 3 Credits (3 Lec, 0 Lab)
This course presents legal terminology relating to substantive areas of law and the federal and state judicial systems. Emphasizes the paralegal's role in the legal system.
Prerequisite(s): Reading Level 6; Writing Level 6
Course Type: Technical

LGLA 1313 Introduction to Paralegal Studies 3 Credits (3 Lec, 0 Lab)
This course provides an overview of the paralegal profession including, professional regulation, trends and issues, ethical obligations, and the paralegal's role in the delivery of legal services.
Prerequisite(s): Reading Level 6; Writing Level 6
Course Type: Technical

LGLA 1317 Law Office Technology 3 Credits (3 Lec, 1 Lab)
This course introduces computer technology and software applications within the law office emphasizing the paralegal's role in the use of law office technology.
Prerequisite(s): Reading level 6, Writing level 6
Course Type: Technical

LGLA 1343 Bankruptcy 3 Credits (3 Lec, 0 Lab)
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(s): Reading level 6, Writing level 6. Prerequisite or Co-requisite(s): LGLA 1307
Course Type: Technical

LGLA 1345 Civil Litigation 3 Credits (3 Lec, 0 Lab)
This course presents fundamental concepts and procedures of civil litigation including pretrial, trial, and post-trial phases of litigation and emphasizes paralegal's role in civil litigation. Topics include pretrial, trial, and post-trial phases of litigation.
Prerequisite(s): Reading level 6, Writing level 6
Course Type: Technical

LGLA 1349 Constitutional Law 3 Credits (3 Lec, 0 Lab)
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(s): Reading level 6, Writing level 6
Course Type: Technical

LGLA 1351 Contracts 3 Credits (3 Lec, 0 Lab)
This course presents fundamental concepts of contract law including formation, performance, and enforcement of contracts under the common law and the Uniform Commercial Code with emphasis on the paralegal's role in contract law.
Prerequisite(s): Reading level 6, Writing level 6. Prerequisite or Co-requisite(s): LGLA 1307
Course Type: Technical

LGLA 1353 Wills, Trusts, and Probate Administration 3 Credits (3 Lec, 0 Lab)
This course covers fundamental concepts of the law of wills, trusts, and probate administration emphasizing the paralegal's role.
Prerequisite(s): Reading level 6, Writing level 6
Course Type: Technical

LGLA 1355 Family Law 3 Credits (3 Lec, 0 Lab)
This course presents fundamental concepts of family law including formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship with emphasis on the paralegal's role in family law.
Prerequisite(s): Reading level 6, Writing level 6
Course Type: Technical
LGLA 1359 Immigration Law 3 Credits (3 Lec, 0 Lab)
This course presents fundamental concepts of immigration law including substantive and procedural law related to visa applications, deportation, naturalization, and citizenship emphasizing the paralegal's role in immigration law.
Prerequisite(s): Reading level 6, Writing level 6. Prerequisite or Co-requisite(s): LGLA 1307
Course Type: Technical

LGLA 2303 Torts and Personal Injury Law 3 Credits (3 Lec, 0 Lab)
This course covers the fundamental concepts of tort and personal injury law including intentional torts, negligence, and strict liability with emphasis on the paralegal's role. It is a study of principles, methods, and investigative techniques utilized to locate, gather, document, and manage information related to tort and personal injury law.
Prerequisite(s): Reading level 6, Writing level 6. Prerequisite or Co-requisite(s): LGLA 1307
Course Type: Technical

LGLA 2305 Interviewing and Investigating 3 Credits (3 Lec, 0 Lab)
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(s): Reading level 6, Writing level 6. Prerequisite or Co-requisite(s): LGLA 1307
Course Type: Technical

LGLA 2309 Real Property 3 Credits (3 Lec, 0 Lab)
This course presents fundamental concepts of real property law including the nature of real property, rights and duties of ownership, land use, voluntary and involuntary conveyances, and the recording of and searching for real estate documents emphasizing the paralegal's role in property law.
Prerequisite(s): Reading level 6, Writing level 6. Prerequisite or Co-requisite(s): LGLA 1307
Course Type: Technical

LGLA 2311 Business Organizations 3 Credits (3 Lec, 0 Lab)
This course covers basic concepts of business organizations including law of agency, sole proprietorships, partnerships, corporations, and other emerging business entities with emphasis on the paralegal's role.
Prerequisite(s): Reading level 6, Writing level 6. Prerequisite or Co-requisite(s): LGLA 1307
Course Type: Technical

LGLA 2313 Criminal Law and Procedure 3 Credits (3 Lec, 0 Lab)
This course introduces fundamental concepts of criminal law and procedure from arrest to final disposition including principles of federal and state law emphasizing the role of the paralegal in the criminal justice system.
Prerequisite(s): Reading level 6, Writing level 6. Prerequisite or Co-requisite(s): LGLA 1307
Course Type: Technical

LGLA 2323 Intellectual Property 3 Credits (3 Lec, 0 Lab)
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(s): Reading level 6, Writing level 6. Prerequisite or Co-requisite(s): LGLA 1307
Course Type: Technical

LGLA 2333 Advanced Legal Document Preparation 3 Credits
This course emphasizes the use of office technology skills in preparation of legal documents by paralegals based on hypothetical situations drawn from various areas of law.
Prerequisite(s): Reading level 6, Writing level 6. Prerequisite or Co-requisite(s): LGLA 1311, LGLA 1313 (3:3-0).
Course Type: Technical

LGLA 2335 Advanced Civil Litigation 3 Credits (3 Lec, 0 Lab)
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 students take or have taken LGLA 1345 Civil Litigation.
Prerequisite(s): Reading level 6, Writing level 6. Prerequisite or Co-requisite(s): LGLA 1307
Course Type: Technical

LGLA 2380 Cooperative Education-Legal Assistant/Paralegal 3 Credits (1 Lec, 15 Lab)
This course provides career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.
Prerequisite(s): Reading level 6, Writing level 6, LGLA 1307, ENGL 1301
Course Type: Technical
PERSONAL TRAINER (FITC)

FITC 1237 Personal Training 2 Credits  (2 Lec, 0 Lab)
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.
Co-requisite(s): FITC 2413.
Course Type: Technical

FITC 1303 Fitness Event Planning and Promotion 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

FITC 2301 Lifestyle Change for Wellness 3 Credits  (3 Lec, 0 Lab)
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.
Co-requisite(s): HPRS 1202.
Course Type: Technical

FITC 2309 Theory of Exercise Program Design and Instruction 3 Credits  (2 Lec, 3 Lab)
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.
Co-requisite(s): FITC 2471.
Course Type: Technical

FITC 2413 Exercise Science 4 Credits  (4 Lec, 0 Lab)
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.
Co-requisite(s): FITC 1237.
Course Type: Technical

FITC 2471 Kinesiology and Biomechanics 4 Credits  (3 Lec, 2 Lab)
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(s): FITC 2413.
Co-requisite(s): FITC 2309.
Course Type: Technical

San Jacinto College 2019-2020
PHARMACY TECHNICIAN  
(PHRA)

PHRA 1202 Pharmacy Law 2 Credits  (2 Lec, 0 Lab)  
This course is an overview of federal and state laws governing the practice of pharmacy. The role of the pharmacy technician and the pharmacist and their associated responsibilities. Includes Code of Ethics, patient confidentiality, and a comparison of legal and ethical aspects.  
Course Type: Technical

PHRA 1243 Pharmacy Technician Certification Review 2 Credits  (2 Lec, 0 Lab)  
This course covers a review of major topics covered on the national Pharmacy Technician Certification Examination (PTCE).  
Co-requisite(s): PHRA 1261, PHRA 2261  
Course Type: Technical

PHRA 1261 Clinical-Pharmacy Technician I 2 Credits  (0 Lec, 10 Lab)  
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(s): PHRA 1345, PHRA 1347, PHRA 1349, PHRA 1441  
Course Type: Technical

PHRA 1305 Drug Classification 3 Credits  (3 Lec, 0 Lab)  
This is a study of pharmaceutical drugs, abbreviations, classifications, dosages, side effects, and routes of administration.  
Course Type: Technical

PHRA 1309 Pharmaceutical Mathematics I 3 Credits  (3 Lec, 0 Lab)  
This course covers solving pharmaceutical calculation problems encountered in the preparation and distribution of drugs.  
Course Type: Technical

PHRA 1313 Community Pharmacy Practice I 3 Credits  (2 Lec, 3 Lab)  
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.  
Course Type: Technical

PHRA 1345 Compounding Sterile Preparations and Aseptic Technique 3 Credits  (2 Lec, 3 Lab)  
This is a study of the process of compounding sterile preparations and aseptic technique within legal and regulatory guidelines specified by USP <797> standards.  
Prerequisite(s): PHRA 1309  
Course Type: Technical

PHRA 1347 Pharmaceutical Mathematics II 3 Credits  (3 Lec, 0 Lab)  
This course focuses on advanced concepts of Pharmaceutical Mathematics I.  
Prerequisite(s): PHRA 1309  
Course Type: Technical

PHRA 1349 Institutional Pharmacy Practice 3 Credits  (2 Lec, 3 Lab)  
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.  
Prerequisite(s): PHRA 1313  
Course Type: Technical

PHRA 1360 Clinical: Community Pharmacy 3 Credits  (0 Lec, 12 Lab)  
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(s): PHRA 1345, 1347, 1349, 1441  
Course Type: Technical

PHRA 1441 Pharmacy Drug Therapy and Treatment 4 Credits  (4 Lec, 0 Lab)  
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.  
Prerequisite(s): PHRA 1305  
Course Type: Technical

PHRA 2261 Clinical-Pharmacy Technician II 2 Credits  (0 Lec, 10 Lab)  
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(s): PHRA 1345, PHRA 1347, PHRA 1349, and PHRA 1441  
Course Type: Technical

PHRA 2360 Clinical: Institutional Pharmacy 3 Credits  (0 Lec, 12 Lab)  
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(s): PHRA 1345, 1347, 1349, and 1441  
Course Type: Technical
**PHILOSOPHY (PHIL)**

**PHIL 1301 Introduction to Philosophy  3 Credits  (3 Lec, 0 Lab)**
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.
Prerequisite(s): Reading level 7, Writing level 7

Course Type: Academic

**PHIL 1304 Introduction to World Religions  3 Credits  (3 Lec, 0 Lab)**
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.
Prerequisite(s): Reading level 7 and Writing level 7

Course Type: Academic

**PHIL 2303 Logic I  3 Credits  (3 Lec, 0 Lab)**
This is a study of nature and methods of correct reasoning, deductive proof, fallacies, and arguments.
Prerequisite(s): Reading level 7, Writing level 7

Course Type: Academic

**PHIL 2306 Introduction to Ethics  3 Credits  (3 Lec, 0 Lab)**
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.
Prerequisite(s): Reading level 7, Writing level 7

Course Type: Academic

**PHIL 2307 Introduction to Social and Political Philosophy  3 Credits  (3 Lec, 0 Lab)**
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.
Prerequisite(s): Reading level 7 and Writing level 7

Course Type: Academic
PHLEBOTOMY (PLAB)

PLAB 1223 Phlebotomy 2 Credits (2 Lec, 1 Lab)
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.
Course Type: Technical
PHYSICAL EDUCATION (PHED)

**PHED 1101 Beginning Tennis 1 Credit (0 Lec, 3 Lab)**
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.
Course Type: Academic

**PHED 1102 Advanced Tennis 1 Credit (0 Lec, 3 Lab)**
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(s): PHED 1101 or department chair approval
Course Type: Academic

**PHED 1104 Volleyball 1 Credit (0 Lec, 3 Lab)**
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.
Course Type: Academic

**PHED 1105 Beginning and Intermediate Swimming 1 Credit (0 Lec, 3 Lab)**
This course offers explanation, demonstration, and practice in the five basic strokes, diving, survival skills, and basic elements of water safety.
Course Type: Academic

**PHED 1106 Canoeing 1 Credit (0 Lec, 3 Lab)**
Lectures, demonstrations and practice in the basic skills and techniques of canoeing are included. Additional fee required.
Course Type: Academic

**PHED 1109 Racquetball 1 Credit (0 Lec, 3 Lab)**
This course introduces the student to the rules, terms, safety, basic skills and strategies necessary to play racquetball.
Course Type: Academic

**PHED 1110 Advanced Racquetball 1 Credit (0 Lec, 3 Lab)**
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(s): PHED 1109 or department chair approval
Course Type: Academic

**PHED 1111 Bowling 1 Credit (0 Lec, 3 Lab)**
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.
Course Type: Academic

**PHED 1112 Badminton 1 Credit (0 Lec, 3 Lab)**
This course covers lectures, demonstrations and practice in the basic skills and techniques of badminton.
Course Type: Academic

**PHED 1113 Golf 1 Credit (0 Lec, 3 Lab)**
Basic skills in playing golf are stressed, including rules and etiquette of the game.
Course Type: Academic

**PHED 1114 Jogging 1 Credit (0 Lec, 3 Lab)**
A variety of methods and materials are presented in the area of cardiovascular and overall physical fitness.
Course Type: Academic

**PHED 1116 Water Aerobics 1 Credit (0 Lec, 3 Lab)**
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.
Course Type: Academic

**PHED 1117 Aerobic Activities 1 Credit (0 Lec, 3 Lab)**
This is a cardiovascular conditioning program designed to improve muscle tone and to help maintain a healthy body weight through fun and fitness activities.
Course Type: Academic

**PHED 1118 Advanced Aerobics 1 Credit (0 Lec, 3 Lab)**
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(s): PHED 1117 or department approval
Course Type: Academic

**PHED 1119 Exercise for Health and Fitness 1 Credit (0 Lec, 3 Lab)**
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.
Course Type: Academic

**PHED 1120 Basketball 1 Credit (0 Lec, 3 Lab)**
This course covers basic skills and techniques of basketball.
Course Type: Academic

**PHED 1121 Slow Pitch Softball 1 Credit (0 Lec, 3 Lab)**
This course covers development of basic techniques and skills of slow-pitch softball.
Course Type: Academic

**PHED 1122 Soccer 1 Credit (0 Lec, 3 Lab)**
This course covers lectures, demonstrations and practice in basic skills and techniques of soccer.
Course Type: Academic

**PHED 1123 Weight Training 1 Credit (0 Lec, 3 Lab)**
This course covers lectures, demonstrations and practice in the basic skills and techniques of weight training.
Course Type: Academic
### PHED 1124 Advanced Weight Training  1 Credit  (0 Lec, 3 Lab)
This course builds upon basic skills and knowledge of weight training. Topics include advanced lifting technique, advanced training theory, biomechanics, and an in-depth understanding of the components of fitness.  
Prerequisite(s): PHED 1123 or instructor approval  
Course Type: Academic

### PHED 1126 Team Sports  1 Credit  (0 Lec, 3 Lab)
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.  
Course Type: Academic

### PHED 1130 Modern Dance  1 Credit  (0 Lec, 3 Lab)
This course covers the fundamental techniques of movement and practice in beginning composition.  
Course Type: Academic

### PHED 1131 Advanced Modern Dance  1 Credit  (0 Lec, 3 Lab)
This course covers advanced skills and techniques in movement with emphasis on choreography.  
Course Type: Academic

### PHED 1132 Beginning Jazz  1 Credit  (0 Lec, 3 Lab)
This course includes basics and background in varied jazz dance forms, from blues to funky, stressing presentation and exploration to creative potential.  
Course Type: Academic

### PHED 1133 Yoga I  1 Credit  (0 Lec, 3 Lab)
This is an introduction to basic yoga postures, breathing, and relaxation techniques with emphasis on physical practice.  
Course Type: Academic

### PHED 1134 Social Dance  1 Credit  (0 Lec, 3 Lab)
This course is designed to offer students instruction in the fundamentals of social dance patterns and the more basic ballroom dance steps.  
Course Type: Academic

### PHED 1135 Beginning Tap Dance  1 Credit  (0 Lec, 3 Lab)
This course covers fundamentals of beginning tap movement and basic steps with emphasis on combination and techniques.  
Course Type: Academic

### PHED 1136 Beginning Ballet  1 Credit  (0 Lec, 3 Lab)
This is an introduction to the theory and terminology of classical ballet with emphasis on techniques including barre and centre work.  
Course Type: Academic

### PHED 1137 Intermediate and Advanced Ballet  1 Credit  (0 Lec, 3 Lab)
This course covers theory and terminology of pointe and pas de deux with greater emphasis on centre and allegro work.  
Course Type: Academic

### PHED 1138 Fitness Swimming  1 Credit  (0 Lec, 3 Lab)
This course introduces students to swimming 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.  
Course Type: Academic

### PHED 1139 Yoga II  1 Credit  (0 Lec, 3 Lab)
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(s): Yoga I or instructor approval.  
Course Type: Academic

### PHED 1140 Martial Arts  1 Credit  (0 Lec, 3 Lab)
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.  
Course Type: Academic

### PHED 1141 Advanced Jazz  1 Credit  (0 Lec, 3 Lab)
This course is designed for the advanced jazz student who wants to develop technical expertise beyond the beginning level of jazz.  
Prerequisite(s): PHED 1133  
Course Type: Academic

### PHED 1142 Fitness Walking  1 Credit  (0 Lec, 3 Lab)
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.  
Course Type: Academic

### PHED 1143 Advanced Weight Training  1 Credit  (0 Lec, 3 Lab)
This course builds upon basic skills and knowledge of weight training. Topics include advanced lifting technique, advanced training theory, biomechanics, and an in-depth understanding of the components of fitness.  
Prerequisite(s): PHED 1123 or instructor approval  
Course Type: Academic

### PHED 1144 Camping  1 Credit  (0 Lec, 3 Lab)
This course includes lectures, demonstrations, practices and field trips related to camping. Other topics may be included such as hiking, backpacking and similar topics.  
Course Type: Academic

### PHED 1145 Kickboxing for Fitness  1 Credit  (0 Lec, 3 Lab)
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.  
Course Type: Academic

### PHED 1164 Introduction to Physical Fitness and Wellness  1 Credit  (0 Lec, 3 Lab)
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.  
Course Type: Academic
PHED 1301 Foundations of Kinesiology 3 Credits (3 Lec, 0 Lab)
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(s): Reading level 6
Course Type: Academic

PHED 1304 Personal/Community Health 3 Credits (3 Lec, 0 Lab)
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(s): Reading level 6
Course Type: Academic

PHED 1306 First Aid 3 Credits (3 Lec, 0 Lab)
This course covers 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.
Course Type: Academic

PHED 1308 Sports Officiating 3 Credits (3 Lec, 0 Lab)
The purpose of the course is to study officiating requirements for sports and games with an emphasis on mechanics, rule interpretation, and enforcement.
Course Type: Academic

PHED 1338 Concepts of Physical Fitness 3 Credits (2 Lec, 3 Lab)
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(s): Reading level 7
Course Type: Academic

PHED 1346 Drug Use & Abuse 3 Credits (3 Lec, 0 Lab)
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.
Course Type: Academic

PHED 2100 Varsity Conditioning I 1 Credit (0 Lec, 3 Lab)
This course provides students with opportunities to participate in varsity team sport conditioning.
Course Type: Academic

PHED 2101 Varsity Conditioning II 1 Credit (0 Lec, 3 Lab)
This course provides students with opportunities to participate in varsity team sport conditioning.
Course Type: Academic

PHED 2102 Varsity Conditioning III 1 Credit (0 Lec, 3 Lab)
This course provides students with opportunities to participate in varsity team sport conditioning.
Course Type: Academic

PHED 2103 Varsity Conditioning IV 1 Credit (0 Lec, 3 Lab)
This course provides students with opportunities to participate in varsity team sport conditioning.
Course Type: Academic

PHED 2106 Varsity Baseball I 1 Credit (0 Lec, 3 Lab)
This course is designed for skilled baseball players who are competing on a collegiate level.
Course Type: Academic

PHED 2107 Varsity Baseball II 1 Credit (0 Lec, 3 Lab)
This course is designed for skilled baseball players who are competing on a collegiate level.
Course Type: Academic

PHED 2108 Varsity Baseball III 1 Credit (0 Lec, 3 Lab)
This course is designed for skilled baseball players who are competing on a collegiate level.
Course Type: Academic

PHED 2109 Varsity Baseball IV 1 Credit (0 Lec, 3 Lab)
This course is designed for skilled baseball players who are competing on a collegiate level.
Course Type: Academic

PHED 2112 Varsity Basketball I 1 Credit (0 Lec, 3 Lab)
This course is designed for skilled basketball players who are competing on a collegiate level.
Course Type: Academic

PHED 2113 Varsity Basketball II 1 Credit (0 Lec, 3 Lab)
This course is designed for skilled basketball players who are competing on a collegiate level.
Course Type: Academic

PHED 2114 Varsity Basketball III 1 Credit (0 Lec, 3 Lab)
This course is designed for skilled basketball players who are competing on a collegiate level.
Course Type: Academic

PHED 2115 Varsity Basketball IV 1 Credit (0 Lec, 3 Lab)
This course is designed for skilled basketball players who are competing on a collegiate level.
Course Type: Academic

PHED 2118 Varsity Soccer I 1 Credit (0 Lec, 3 Lab)
This course is designed for skilled soccer players who are competing on a collegiate level.
Course Type: Academic

PHED 2119 Varsity Soccer II 1 Credit (0 Lec, 3 Lab)
This course is designed for skilled soccer players who are competing on a collegiate level.
Course Type: Academic

PHED 2120 Varsity Soccer III 1 Credit (0 Lec, 3 Lab)
This course is designed for skilled soccer players who are competing on a collegiate level.
Course Type: Academic
PHED 2121 **Varsity Soccer IV** 1 Credit  (0 Lec, 3 Lab)
This course is designed for skilled soccer players who are competing on a collegiate level.
Course Type: Academic

PHED 2124 **Varsity Softball I** 1 Credit  (0 Lec, 3 Lab)
This course is designed for skilled softball players who are competing on a collegiate level.
Course Type: Academic

PHED 2125 **Varsity Softball II** 1 Credit  (0 Lec, 3 Lab)
This course is designed for skilled softball players who are competing on a collegiate level.
Course Type: Academic

PHED 2126 **Varsity Softball III** 1 Credit  (0 Lec, 3 Lab)
This course is designed for skilled softball players who are competing on a collegiate level.
Course Type: Academic

PHED 2127 **Varsity Softball IV** 1 Credit  (0 Lec, 3 Lab)
This course is designed for skilled softball players who are competing on a collegiate level.
Course Type: Academic

PHED 2130 **Varsity Volleyball I** 1 Credit  (0 Lec, 3 Lab)
This course is designed for skilled volleyball players who are competing on a collegiate level.
Course Type: Academic

PHED 2131 **Varsity Volleyball II** 1 Credit  (0 Lec, 3 Lab)
This course is designed for skilled volleyball players who are competing on a collegiate level.
Course Type: Academic

PHED 2132 **Varsity Volleyball III** 1 Credit  (0 Lec, 3 Lab)
This course is designed for skilled volleyball players who are competing on a collegiate level.
Course Type: Academic

PHED 2133 **Varsity Volleyball IV** 1 Credit  (0 Lec, 3 Lab)
This course is designed for skilled volleyball players who are competing on a collegiate level.
Course Type: Academic

PHED 2140 **Advanced Martial Arts** 1 Credit  (0 Lec, 3 Lab)
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(s): PHED 1140 or instructor approval
Course Type: Academic

PHED 2356 **Care and Prevention of Athletic Injuries** 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Academic
PHYSICAL THERAPIST ASST (PTHA)

PTHA 1201 The Profession of Physical Therapy 2 Credits  (2 Lec, 0 Lab)
This course covers the introduction to the profession of physical therapy and the role of the physical therapist assistant.
Prerequisite(s): Reading level 7, Math level 9, and Writing level 7
Course Type: Technical

PTHA 1305 Basic Patient Care Skills 3 Credits  (2 Lec, 3 Lab)
This course covers the application of basic patient handling, functional skills, communication, and selected data collection techniques.
Prerequisite(s): Reading level 7, Math level 9, and Writing level 7
Course Type: Technical

PTHA 1313 Functional Anatomy 3 Credits  (2 Lec, 4 Lab)
This course covers the relationship of the musculoskeletal and neuromuscular systems to normal and abnormal movement.
Prerequisite(s): Reading level 7, Math level 9, and Writing level 7
Course Type: Technical

PTHA 1321 Pathophysiology for the PTA 3 Credits  (3 Lec, 0 Lab)
This course covers the study of pathophysiology of diseases/conditions encountered in physical therapy.
Prerequisite(s): 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.
Course Type: Technical

PTHA 1360 Clinical I - PTA 3 Credits  (0 Lec, 12 Lab)
This course provides 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(s): Reading level 7, Math level 9, Writing level 7, PTHA 1321, and 2250.
Course Type: Technical

PTHA 1431 Physical Agents 4 Credits  (2 Lec, 4 Lab)
This course covers biophysical principles, physiological effects, efficacy, and application of physical agents.
Prerequisite(s): PTHA 1201, 1305, 1313, and 1321.
Course Type: Technical

PTHA 2201 Essentials of Data Collection 2 Credits  (1 Lec, 3 Lab)
This course covers data collection techniques used to assist in patient/client management
Prerequisite(s): Reading level 7, Math level 9, Writing level 7, PTHA 1201, 1305, and 1313; BIOL 2404 or BIOL 2301, 2101, 2302, and 2102.
Course Type: Technical

PTHA 2205 Neurology 2 Credits  (2 Lec, 0 Lab)
This course is a study of neuroanatomy and neurophysiology as it relates to neurological conditions.
Prerequisite(s): Reading level 7, Writing level 7, Math level 9
Course Type: Technical

PTHA 2217 Issues in Health Care 2 Credits  (2 Lec, 0 Lab)
This course covers organizational patterns, administrative principles, legal and ethical issues in physical therapy, and preparation for licensure and employment.
Prerequisite(s): Reading level 7, Writing level 7, Math level 9
Course Type: Technical

PTHA 2239 Professional Issues 2 Credits  (2 Lec, 0 Lab)
This course covers the discussion of professional issues and behaviors related to clinical practice; preparation for transition into the workforce.
Prerequisite(s): Reading level 7, Math level 9, Writing level 7, PTHA 1321 and 2250
Course Type: Technical

PTHA 2409 Therapeutic Exercise 4 Credits  (3 Lec, 3 Lab)
This course covers concepts, principles, and application of techniques related to therapeutic exercise and functional training.
Prerequisite(s): PTHA 1201, 1305, 1313, and 1321.
Course Type: Technical

PTHA 2431 Management of Neurological Disorders 4 Credits  (3 Lec, 4 Lab)
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.
Prerequisite(s): Reading level 7, Math level 9, Writing level 7, PTHA 1321, and 2250.
Course Type: Technical

PTHA 2435 Rehabilitation Techniques 4 Credits  (3 Lec, 3 Lab)
This course covers the comprehensive rehabilitation of selected diseases and disorders.
Prerequisite(s): Reading level 7, Math level 9, and Writing level 7, PTHA 1321 and 2250.
Course Type: Technical

PTHA 2460 Clinical II - PTA 4 Credits  (0 Lec, 16 Lab)
This course provides 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(s): Reading level 7, Math level 9, Writing level 7, PTHA 2431, 2435, 2239, and 1360, MATH 1314
Course Type: Technical

PTHA 2461 Clinical III - PTA 4 Credits  (0 Lec, 16 Lab)
This course provides 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(s): Reading level 7, Math level 9, Writing level 7, PTHA 2431, 2435, 2239, and 1360, MATH 1314.
Course Type: Technical
**PHYSICS (PHYS)**

**PHYS 1101 College Physics I (lab) 1 Credit (0 Lec, 3 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.  
Prerequisite(s): MATH 1314 or higher and Reading level 7;  
Co-requisite(s): PHYS 1301  
Course Type: Academic

**PHYS 1102 College Physics II (lab) 1 Credit (0 Lec, 3 Lab)**  
This lab course activities will reinforce fundamental 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(s): PHYS 1301/1101;  
Co-requisite(s): PHYS 1302  
Course Type: Academic

**PHYS 1301 College Physics I (lecture) 3 Credits (3 Lec, 0 Lab)**  
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.  
Prerequisite(s): MATH 1314 or higher and Reading level 7;  
Co-requisite(s): PHYS 1101  
Course Type: Academic

**PHYS 1302 College Physics II (lecture) 3 Credits (3 Lec, 0 Lab)**  
This lecture course covers fundamental 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(s): PHYS 1301/1101;  
Co-requisite(s): PHYS 1102  
Course Type: Academic

**PHYS 2125 University Physics I (lab) 1 Credit (0 Lec, 3 Lab)**  
This lab course covers experiments supporting theoretical principles presented in PHYS 2325 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.  
Prerequisite(s): PHYS 2325/2125, and MATH 2414;  
Co-requisite(s): PHYS 2326  
Course Type: Academic

**PHYS 2325 University Physics I (lecture) 3 Credits (3 Lec, 0 Lab)**  
This lecture 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.  
Prerequisite(s): MATH 2413 or higher and Reading level 7;  
Co-requisite(s): PHYS 2125, MATH 2414  
Course Type: Academic

**PHYS 2326 University Physics II (lecture) 3 Credits (3 Lec, 0 Lab)**  
In this continuation of PHYS 2425, 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.  
Prerequisite(s): PHYS 2325/2125 and MATH 2414;  
Co-requisite(s): PHYS 2126  
Course Type: Academic

**PHYS 2389 Academic Cooperative 3 Credits (1 Lec, 8 Lab)**  
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.  
Prerequisite(s): Eight hours of physics; Reading level 7, Writing level 7, Math level 8  
Course Type: Academic
PLUMBER/PIPEFITTER (PFPB)

PFPB 1408 Basic Pipefitting Skills 4 Credits (2 Lec, 4 Lab)
This course covers 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.
Course Type: Technical

PFPB 1443 Pipefitting Fabrication and Blueprint Reading 4 Credits (2 Lec, 4 Lab)
This course is a continuation of basic pipefitting skills including fabrication, rigging, pipe hangers and supports, blueprint reading, standards and specifications, and trade math.
Course Type: Technical

PFPB 2432 Advanced Pipefitting Standards, Specifications, and Installation 4 Credits (2 Lec, 4 Lab)
This 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).
Prerequisite(s): PFPB 1408, PFPB 1443
Course Type: Technical

PFPB 2433 Pipefitting: Advanced Fabrication and Installation 4 Credits (2 Lec, 4 Lab)
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.
Prerequisite(s): PFPB 1408, PFPB 1443
Course Type: Technical
PROCESS TECHNOLOGY (CTEC)

CTEC 2487 Internship - Chemical Technology/Technician 4 Credits (0 Lec, 24 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7, Math level 6
Course Type: Technical
PROCESS TECHNOLOGY (PTAC)

PTAC 1302 Introduction to Process Technology 3 Credits (3 Lec, 1 Lab)
This is an introduction overview to the various processing industries.
Prerequisite(s): Reading level 7, Writing level 7, Math level 6
Course Type: Technical

PTAC 1308 Safety, Health, and Environment I 3 Credits (3 Lec, 1 Lab)
This course is an overview of safety, health and environmental issues in
the performance of all job tasks 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.
Prerequisite(s): Reading level 7, Writing level 7, Math level 6
Course Type: Technical

PTAC 1310 Process Technology I - Equipment 3 Credits (2 Lec, 4 Lab)
This course is an introduction to the use of common processing
equipment. Prerequisite or
Prerequisite(s): PTAC 1302;
Course Type: Technical

PTAC 1332 Process Instrumentation I 3 Credits (3 Lec, 1 Lab)
This is a study of instruments and control systems used in the process
industry including terminology, process variables, symbology, control
loops, and basic troubleshooting. Prerequisite or
Prerequisite(s): TECM 1301 or higher, Reading level 7, Writing level 7,
Math level 6
Co-requisite(s): PTAC 1302;
Course Type: Technical

PTAC 1410 Process Technology I - Equipment 4 Credits (2 Lec, 4 Lab)
This course is an introduction to process technology or related work
experience. Prerequisites or
Co-requisite(s): PTAC 1302, Reading level 7, Writing level 7, Math level 6
Course Type: Technical

PTAC 1432 Process Instrumentation I 4 Credits (3 Lec, 2 Lab)
This is a study of instruments and control systems used in the process
industry including terminology, process variables, symbology, control
loops, and basic troubleshooting. Prerequisite or
Prerequisite(s): TECM 1301 or higher, Reading level 7, Writing level 7,
Math level 6
Co-requisite(s): PTAC 1302;
Course Type: Technical

PTAC 2314 Principles of Quality 3 Credits (3 Lec, 1 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7, Math level 6
Course Type: Technical

PTAC 2420 Process Technology II-Systems 4 Credits (3 Lec, 3 Lab)
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(s): PTAC 1310 and Reading level 7, Writing level 7, Math level 6
Course Type: Technical

PTAC 2438 Process Technology III - Operations 4 Credits (3 Lec, 3 Lab)
This course emphasizes activities associated with the hands-on
operation of process equipment.
Prerequisite(s): PTAC 1332 and PTAC 2420, Reading level 7, Writing level
7, Math level 6
Course Type: Technical

PTAC 2446 Process Troubleshooting 4 Credits (3 Lec, 3 Lab)
This course offers instruction in the different types of troubleshooting
techniques, procedures, and methods used to solve process problems.
Prerequisite(s): PTAC 1332 and PTAC 2420, Reading level 7, Writing level
7, Math level 6
Course Type: Technical
PROCESS TECHNOLOGY
(PRTT)

PRTT 1301 Introduction to Petroleum Industry 3 Credits (3 Lec, 0 Lab)
This is an introduction to the various aspects of petroleum industry including equipment, systems, instrumentation, operations, and the various scientific principles. Addresses a variety of petroleum technologies: exploration, drilling, production, transportation, marketing and chemical processing industries.
Prerequisite(s): Reading level 7, Writing level 7, Math level 6. Prerequisite or Co-requisite PTAC 1302.

Course Type: Technical
PSYCHOLOGY (PSYC)

PSYC 1300 Learning Framework 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7
Course Type: Academic

PSYC 2301 General Psychology 3 Credits (3 Lec, 0 Lab)
This course is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes.
Prerequisite(s): Reading level 7, Writing level 7
Course Type: Academic

PSYC 2306 Human Sexuality 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): SOCI 1301 or PSYC 2301, Reading level 7, Writing level 7
Course Type: Academic

PSYC 2308 Child Psychology 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): PSYC 2301, Reading level 7, Writing level 7
Course Type: Academic

PSYC 2314 Lifespan Growth and Development 3 Credits (3 Lec, 0 Lab)
This course is a study of social, emotional, cognitive and physical factors and influences of a developing human from conception to death.
Prerequisite(s): PSYC 2301, Reading level 7, Writing level 7
Course Type: Academic

PSYC 2315 Psychology of Adjustment 3 Credits (3 Lec, 0 Lab)
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.
Prerequisite(s): PSYC 2301, Reading level 7, Writing level 7
Course Type: Academic

PSYC 2317 Statistical Methods in Psychology 3 Credits (3 Lec, 0 Lab)
This course covers descriptive and inferential statistics used in psychological research and assessment. It includes measurement, characteristics of distributions; measures of central tendency and variability; transformed scores; correlation and regression; probability theory; and hypotheses testing and inference.
Prerequisite(s): PSYC 2301, MATH 1314, Reading level 7, and Writing level 7
Course Type: Academic

PSYC 2319 Social Psychology 3 Credits (3 Lec, 0 Lab)
This course is the study of individual behavior within the social environment. Topics may include socio-psychological processes, attitude formation and change, interpersonal relations, group processes, self, social cognition, and research methods.
Prerequisite(s): PSYC 2301, Reading level 7, Writing level 7
Course Type: Academic

PSYC 2320 Abnormal Psychology 3 Credits (3 Lec, 0 Lab)
This course provides an introduction to the psychological, biological, and socio-cultural factors involved in the development, diagnosis, and treatment of psychological disorders. It includes a review of the historical understanding of abnormal behavior and the development of modern diagnostic systems. It includes discussion of psychological research and practice as it relates to mental health and psychological functioning, as well as legal and ethical issues.
Prerequisite(s): PSYC 2301, Reading level 7, and Writing level 7
Course Type: Academic

PSYC 2330 Biological Psychology 3 Credits (3 Lec, 0 Lab)
This course is an introduction to the biological bases of behavior. Topics include evolution, genetics, research methods in behavioral neuroscience, motivation and emotion, sensation and perception, learning and memory, lifespan development, cognition, psychological disorders, and other complex behaviors.
Prerequisite(s): PSYC 2301, Reading level 7, and Writing level 7
Course Type: Academic
READING (READ)

READ 0110 Developmental Reading (NCBO) 1 Credit (1 Lec, 0 Lab)
This course is a study of the fundamental reading skills to develop comprehension, vocabulary, and rate.
Course Type: College Prep

READ 0308 Basic Reading Skills 3 Credits (3 Lec, 1 Lab)
This course is designed for the development of reading and higher order thinking skills necessary for college readiness. 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(s): Reading level 2
Course Type: College Prep

READ 0309 Reading Comprehension 3 Credits (3 Lec, 1 Lab)
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(s): a grade of C or above in READ 0308 or reading score within defined range.
Course Type: College Prep

READ 0310 College Reading Techniques 3 Credits (3 Lec, 0 Lab)
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(s): a grade of C or above in READ 0309 or reading score within defined range.
Course Type: College Prep

READ 0311 Speed Reading 3 Credits (3 Lec, 0 Lab)
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(s): Reading level 7
Course Type: College Prep
REAL ESTATE (RELE)

RELE 1201 Principles of Real Estate I 2 Credits  (2 Lec, 0 Lab)
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.
Course Type: Technical

RELE 1211 Law of Contracts 2 Credits  (2 Lec, 0 Lab)
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.
Course Type: Technical

RELE 1238 Principles of Real Estate II 2 Credits  (2 Lec, 0 Lab)
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,
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.
Course Type: Technical

RELE 1300 Contract Forms and Addenda 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

RELE 1303 Real Estate Appraisal 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

RELE 1307 Real Estate Investments 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

RELE 1315 Property Management 3 Credits  (3 Lec, 0 Lab)
This course explains the role of the property manager, landlord policies,
operational guidelines, leases, lease negotiations, tenant relations,
maintenance, reports, habitability laws, and the Fair Housing Act. It is
recommended that you take or have taken RELE 1201.
Course Type: Technical

RELE 1319 Real Estate Finance 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

RELE 1321 Real Estate Marketing 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

RELE 1323 Real Estate Computer Application 3 Credits  (2 Lec, 2 Lab)
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.
Course Type: Technical

RELE 1325 Real Estate Mathematics 3 Credits  (3 Lec, 0 Lab)
This course covers basic arithmetic skills. Includes mathematical logic,
percentages, interest, time value of money, depreciation, amortization,
proration, and estimation of closing statement.
Course Type: Technical

RELE 2301 Law of Agency 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

RELE 2331 Real Estate Brokerage 3 Credits  (3 Lec, 0 Lab)
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.
Course Type: Technical

RELE 2366 Real Estate Practicum I 3 Credits  (0 Lec, 21 Lab)
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(s): must have a job (paid or unpaid) working in a real estate
related position at least 20 hours per week. Students may not be enrolled
in more than one real estate practicum class during the same semester.
Course Type: Technical
RELE 2367  Real Estate Practicum 2  3 Credits  (0 Lec, 21 Lab)
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: RELE 2366
Prerequisite(s): must have a job (paid or unpaid) working in a real estate related position at least 20 hours per week. Students may not be enrolled in more than one real estate practicum class during the same semester.
RELE 2366

Course Type: Technical
RESPIRATORY CARE (RSPT)

RSPT 1101 Introduction to Respiratory Care 1 Credit (1 Lec, 0 Lab)
This course is an introduction to the field of respiratory care.
Course Type: Technical

RSPT 1160 Respiratory Care Clinical 1 Credit (0 Lec, 6 Lab)
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.
Co-requisite(s): RSPT 1329
Course Type: Technical

RSPT 1225 Respiratory Care Sciences 2 Credits (2 Lec, 0 Lab)
This course is a study of physics, mathematics, and chemistry as related to respiratory care.
Prerequisite(s): MATH 1314 or MATH 1332 or MATH 1342 or a higher level math
Course Type: Technical

RSPT 1267 Respiratory Care Practicum I 2 Credits (0 Lec, 16 Lab)
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.
Prerequisite(s): HPRS 1106, RSPT 1325, 1340, 1429;
Co-requisite(s): RSPT 1431
Course Type: Technical

RSPT 1325 Respiratory Care Sciences 3 Credits (3 Lec, 0 Lab)
This course is a study of physics, mathematics, and chemistry as related to respiratory care.
Prerequisite(s): MATH 1314 OR TECM 1301 or a higher level math
Course Type: Technical

RSPT 1329 Respiratory Care Fundamentals I 3 Credits (2 Lec, 3 Lab)
This course is an introduction to respiratory care fundamentals.
Course Type: Technical

RSPT 1331 Respiratory Care Fundamentals II 3 Credits (2 Lec, 3 Lab)
This course provides continued development of knowledge and skills for respiratory care.
Prerequisite(s): RSPT 1225, 1340, and 1329;
Co-requisite(s): RSPT 1360
Course Type: Technical

RSPT 1340 Advanced Cardiopulmonary Anatomy and Physiology 3 Credits (3 Lec, 1 Lab)
This course provides an advanced presentation of anatomy and physiology of the cardiovascular and pulmonary system.
Prerequisite(s): BIOL 2404 or BIOL 2301/2101 and 2302/2102
Course Type: Technical

RSPT 1360 Respiratory Care Clinical I 3 Credits (0 Lec, 15 Lab)
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.
Prerequisite(s): RSPT 1225, 1340, 1329;
Co-requisite(s): RSPT 1331
Course Type: Technical

RSPT 1429 Respiratory Care Fundamentals I 4 Credits (3 Lec, 3 Lab)
This course is an introduction to respiratory care fundamentals.
Course Type: Technical

RSPT 1431 Respiratory Care Fundamentals II 4 Credits (3 Lec, 3 Lab)
This course provides continued development of knowledge and skills for respiratory care.
Prerequisite(s): RSPT 1325, 1340, and 1429;
Co-requisite(s): RSPT 1460
Course Type: Technical

RSPT 1460 Respiratory Care Clinical I 4 Credits (0 Lec, 16 Lab)
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.
Prerequisite(s): RSPT 1325, 1340, 1429;
Co-requisite(s): RSPT 1431
Course Type: Technical

RSPT 2130 Respiratory Care Examination Preparation 1 Credit (1 Lec, 1 Lab)
This course is a comprehensive review to optimize respiratory care credentialing exam success.
Prerequisite(s): RSPT 2355
Course Type: Technical

RSPT 2167 Respiratory Care Practicum II 1 Credit (0 Lec, 10 Lab)
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(s): RSPT 1267;
Co-requisite(s): RSPT 2314
Course Type: Technical

RSPT 2217 Respiratory Care Pharmacology 2 Credits (2 Lec, 0 Lab)
This course is a study of drugs that affect cardiopulmonary systems, with an emphasis on classification, route of administration, dosages/calculations, and physiologic interactions.
Course Type: Technical
RSPT 2258  Respiratory Care Patient Assessment  2 Credits  (2 Lec, 1 Lab)
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 noninvasive hemodynamics.
Co-requisite(s): RSPT 2267
Course Type: Technical

RSPT 2266  Respiratory Care Practicum III  2 Credits  (0 Lec, 16 Lab)
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(s): RSPT 2167;
Co-requisite(s): RSPT 2353
Course Type: Technical

RSPT 2267  Respiratory Care Practicum IV  2 Credits  (0 Lec, 16 Lab)
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(s): RSPT 2266;
Co-requisite(s): RSPT 2258
Course Type: Technical

RSPT 2310  Cardiopulmonary Disease  3 Credits  (3 Lec, 0 Lab)
This course covers etiology, pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases.
Prerequisite(s): RSPT 1340
Course Type: Technical

RSPT 2314  Mechanical Ventilation  3 Credits  (3 Lec, 1 Lab)
This course is a study of mechanical ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics.
Prerequisite(s): RSPT 1429, RSPT 1460
Course Type: Technical

RSPT 2317  Respiratory Care Pharmacology  3 Credits  (3 Lec, 0 Lab)
This course is a study of drugs that affect cardiopulmonary systems, with an emphasis on classification, route of administration, dosages/calculations, and physiologic interactions.
Course Type: Technical

RSPT 2325  Cardiopulmonary Diagnostics  3 Credits  (3 Lec, 1 Lab)
This course is a study of physical, radiological, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessments.
Co-requisite(s): RSPT 2362
Course Type: Technical

RSPT 2353  Neonatal/Pediatric Cardiopulmonary Care  3 Credits  (3 Lec, 1 Lab)
This course is a study of neonatal and pediatric cardiopulmonary care.
Prerequisite RSPT 2471; Co-requisite RSPT 2361
Course Type: Technical

RSPT 2355  Critical Care Monitoring  3 Credits  (3 Lec, 1 Lab)
This course covers advanced monitoring techniques used to access a patient in the critical care setting.
Prerequisite(s): RSPT 2310
Course Type: Technical

RSPT 2360  Respiratory Care Clinical II  3 Credits  (0 Lec, 15 Lab)
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.
Prerequisite(s): RSPT 1460, RSPT 2314;
Co-requisite(s): RSPT 2471
Course Type: Technical

RSPT 2361  Respiratory Care Clinical III  3 Credits  (0 Lec, 18 Lab)
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.
Prerequisite(s): RSPT 2360, RSPT 2471;
Co-requisite(s): RSPT 2353
Course Type: Technical

RSPT 2362  Respiratory Care Clinical IV  3 Credits  (0 Lec, 18 Lab)
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.
Prerequisite(s): RSPT 2361, RSPT 2355;
Co-requisite(s): RSPT 2325
Course Type: Technical

RSPT 2371  Mechanical Ventilation II  3 Credits  (3 Lec, 1 Lab)
This course is a continued study of mechanical ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics.
Prerequisite(s): RSPT 2314
Course Type: Technical

RSPT 2471  Mechanical Ventilation II  4 Credits  (4 Lec, 1 Lab)
This course is a continued study of mechanical ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics.
Prerequisite(s): RSPT 2314
Course Type: Technical
AMERICAN SIGN LANGUAGE (SGNL)

SGNL 1401  Beginning American Sign Language I  4 Credits  (3 Lec, 2 Lab)
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 learning language patterns and forms and two hours a week in lab activities.
Course Type: Academic

SGNL 1402  Beginning American Sign Language II  4 Credits  (3 Lec, 2 Lab)
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 learning language patterns and forms and two hours a week in lab activities.
Course Type: Academic
SOCI 1301 Introduction to Sociology  3 Credits  (3 Lec, 0 Lab)
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(s): Reading level 6

Course Type: Academic

SOCI 1306 Social Problems  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7

Course Type: Academic

SOCI 2301 Marriage and the Family  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7 and Writing level 7

Course Type: Academic

SOCI 2306 Human Sexuality  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): SOCI 1301 or PSYC 2301, Reading level 7, and Writing level 7

Course Type: Academic

SOCI 2319 Minority Studies I  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): Reading level 7, Writing level 7

Course Type: Academic
SPANISH (SPAN)

SPAN 1411  Beginning Spanish I  4 Credits  (3 Lec, 2 Lab)
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(s): Reading level 6
Course Type: Academic

SPAN 1412  Beginning Spanish II  4 Credits  (3 Lec, 2 Lab)
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(s): SPAN 1411
Course Type: Academic

SPAN 1415  Essentials of Spanish for Health Vocations  4 Credits  (3 Lec, 2 Lab)
This course requires intensive practice in basic grammar, pronunciation, reading and simple conversation; emphasis is placed on medical terminology. This course cannot be substituted for SPAN 1411
Course Type: Academic

SPAN 2311  Intermediate Spanish I  3 Credits  (3 Lec, 0 Lab)
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.
Prerequisite(s): SPAN 1411-1412
Course Type: Academic

SPAN 2312  Intermediate Spanish II  3 Credits  (3 Lec, 0 Lab)
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(s): SPAN 2311
Course Type: Academic
**SPEECH (SPCH)**

**SPCH 1311 Introduction to Speech Communication 3 Credits (3 Lec, 0 Lab)**
This course introduces basic human communication principles and theories embedded in a variety of contexts including interpersonal, small group, and public speaking.
Prerequisite(s): Reading level 6
Course Type: Academic

**SPCH 1315 Public Speaking 3 Credits (3 Lec, 0 Lab)**
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(s): Reading level 6
Course Type: Academic

**SPCH 1318 Interpersonal Communication 3 Credits (3 Lec, 0 Lab)**
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(s): Reading level 6
Course Type: Academic

**SPCH 1321 Business and Professional Speech 3 Credits (3 Lec, 0 Lab)**
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(s): Reading level 6
Course Type: Academic

**SPCH 1342 Voice and Diction 3 Credits (3 Lec, 0 Lab)**
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(s): Reading level 6
Course Type: Academic

**SPCH 2335 Argumentation and Debate 3 Credits (3 Lec, 0 Lab)**
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(s): Reading level 7
Course Type: Academic

**SPCH 2336 Forensics 3 Credits (3 Lec, 0 Lab)**
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(s): Reading level 7
Course Type: Academic

**SPCH 2341 Oral Interpretation 3 Credits (3 Lec, 0 Lab)**
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(s): Reading level 6
Course Type: Academic
SURGICAL TECHNOLOGY (SRGT)

SRGT 1260 Clinical I Surgical  2 Credits  (0 Lec, 8 Lab)
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-requisite(s): SRGT 1505 and SRGT 1509
Course Type: Technical

SRGT 1360 Clinical II Surgical  3 Credits  (0 Lec, 12 Lab)
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(s): SRGT 1541
Course Type: Technical

SRGT 1505 Introduction to Surgical Technology  5 Credits  (4 Lec, 4 Lab)
This is an orientation to surgical technology theory, surgical pharmacology and anesthesia, technological sciences, and patient care concepts.
Course Type: Technical

SRGT 1509 Fundamentals of Perioperative Concepts and Techniques  5 Credits  (4 Lec, 3 Lab)
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(s): SRGT 1260
Course Type: Technical

SRGT 1541 Surgical Procedures I  5 Credits  (5 Lec, 0 Lab)
This is an introduction to surgical procedures and related pathologies with emphasis on surgical procedures related to general, obstetrics/gynecology, genitourinary, otolaryngology and orthopedic surgical specialties incorporating instruments, equipment, and supplies. Prerequisite(s): SRGT 1505, 1509, and 1260. Co-requisite SRGT 1360.
Course Type: Technical

SRGT 1542 Surgical Procedures II  5 Credits  (5 Lec, 0 Lab)
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. Prerequisite(s): HPRS 2200, 2301; SRGT 1505, 1509, 1260, 1360, and 1541.
Co-requisite(s): SRGT 2460.
Course Type: Technical

SRGT 2130 Professional Readiness  1 Credit  (1 Lec, 0 Lab)
This course is a transition into the professional role of the surgical technologist. Includes professional readiness for employment, attaining certification, and maintaining certification status.
Prerequisite(s): HPRS 2200, 2301; SRGT 1505, 1509, 1260, 1360, and 1541.
Course Type: Technical

SRGT 2460 Clinical III Surgical  4 Credits  (0 Lec, 20 Lab)
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.
Co-requisite(s): SRGT 1542
Course Type: Technical
# WELDING (WLDG)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>WLDG 1204</td>
<td>Fundamentals of Oxy-Fuel Welding and Cutting</td>
<td>2</td>
<td>1 (Lec) 3 (Lab)</td>
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<tr>
<td></td>
<td>This course covers Oxy-fuel welding and cutting equipment. Includes</td>
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<td>equipment safety, setup, and maintenance.</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 1305</td>
<td>Art Metals</td>
<td>3</td>
<td>2 (Lec) 2 (Lab)</td>
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<td></td>
<td>This course covers the fundamentals of conceptualizing and producing</td>
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<td></td>
<td>utilitarian items in ferrous and non-ferrous metals. Includes skill</td>
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<td>development through the techniques of sinking, raising, repousse, and</td>
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<td>piercing to create objects from sheet and stock materials. Also covers</td>
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<td>welding, brazing, soldering, tinning, polishing, and tool making.</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 1308</td>
<td>Metal Sculpture</td>
<td>3</td>
<td>2 (Lec) 6 (Lab)</td>
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<td></td>
<td>This course covers techniques and methods of oxy-acetylene and electric</td>
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<td>welding and cutting to produce metal sculptures. Includes skill development</td>
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<td>in material forming, welding, brazing, and finishing techniques. Also covers</td>
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<td>work ethics, artistic styles, and professionalism.</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 1337</td>
<td>Introduction to Welding Metallurgy</td>
<td>3</td>
<td>2 (Lec) 4 (Lab)</td>
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<td></td>
<td>This course is a study of metals from the ore to the finished product.</td>
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<td></td>
<td>The emphasis of the course is on metal alloys, heat treating, hard</td>
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<td>surfacing, welding techniques, forging, foundry processes, and mechanical</td>
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<td></td>
<td>properties of metal including hardness, machinability, and ductility.</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 1412</td>
<td>Introduction to Flux Cored Arc Welding</td>
<td>4</td>
<td>2 (Lec) 6 (Lab)</td>
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<td></td>
<td>This course is an overview of terminology, safety procedures, and</td>
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<td></td>
<td>equipment setup. Practice in performing T-joints, lap joints, and butt</td>
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<td>joints using Flux Cored Arc Welding (FCAW) equipment.</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 1413</td>
<td>Introduction to Blueprint Reading</td>
<td>4</td>
<td>2 (Lec) 6 (Lab)</td>
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<td></td>
<td>This course is a study of industrial blueprints. Emphasis placed on</td>
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<td></td>
<td>terminology, symbols, graphic description, and welding processes.</td>
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<td></td>
<td>Includes systems of measurement and industry standards. Also includes</td>
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<td></td>
<td>interpretation of plans and drawings used by industry to facilitate field</td>
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<td>application and production.</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 1428</td>
<td>Introduction to Shielded Metal Arc Welding (SMAW)</td>
<td>4</td>
<td>2 (Lec) 6 (Lab)</td>
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<tr>
<td></td>
<td>This is an introduction to the shielded metal arc welding process.</td>
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<td>Emphasis placed on power sources, electrode selection, oxy-fuel cutting,</td>
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<td>and various joint designs. Instruction is provided on SMAW fillet welds</td>
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<td>in various positions.</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 1430</td>
<td>Introduction to Gas Metal Arc Welding (GMAW)</td>
<td>4</td>
<td>2 (Lec) 6 (Lab)</td>
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<tr>
<td></td>
<td>This course covers principles of gas metal arc welding, setup and use of</td>
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<td></td>
<td>Gas Metal Arc Welding (GMAW) equipment, and safe use of tools and</td>
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<td></td>
<td>equipment. Instruction provided in various joint designs.</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 1434</td>
<td>Introduction to Gas Tungsten Arc Welding (GTAW)</td>
<td>4</td>
<td>2 (Lec) 6 (Lab)</td>
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<td></td>
<td>This is a study of the principles of gas tungsten welding, including setup,</td>
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<td>GTAW equipment. Instruction is provided in various positions and joint</td>
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<td>designs.</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 1437</td>
<td>Introduction to Welding Metallurgy</td>
<td>4</td>
<td>3 (Lec) 3 (Lab)</td>
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<td></td>
<td>This is a study of metals from the ore to the finished product. Emphasis on</td>
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<td>metal alloys, heat treating, hard surfacing, welding techniques, forging,</td>
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<td>foundry processes, and mechanical properties of metal including hardness,</td>
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<td>machinability, and ductility.</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 2406</td>
<td>Intermediate Pipe Welding</td>
<td>4</td>
<td>2 (Lec) 6 (Lab)</td>
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<td>This is a comprehensive course on the welding of pipe using the shielded</td>
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<td>metal arc welding (SMAW) process. Welding will be done using various</td>
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<td>positions. Topics covered include electrode selection, equipment setup,</td>
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<td></td>
<td>and safe shop practices. Prerequisite or Co-requisite(s): WLDG 2443</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 2413</td>
<td>Intermediate Welding Using Multiple Processes</td>
<td>4</td>
<td>2 (Lec) 6 (Lab)</td>
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<td></td>
<td>This course offers instruction using layout tools and blueprint reading</td>
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<td>with demonstration and guided practices with some of the following welding</td>
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<td>processes: oxy-fuel gas cutting and welding, shielded metal arc welding</td>
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<td>(SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas</td>
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<td>tungsten arc welding (GTAW), or any other approved welding process.</td>
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<td></td>
<td>Prerequisite or Co-requisite(s): WLDG 2451</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 2443</td>
<td>Advanced Shielded Metal Arc Welding (SMAW)</td>
<td>4</td>
<td>2 (Lec) 6 (Lab)</td>
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<td></td>
<td>This course covers advanced topics based on accepted welding codes.</td>
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<td>Training is provided with various electrodes in shielded metal arc welding</td>
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<td>with open V-groove joints in all positions. Prerequisite or Co-requisite(s)</td>
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<td>WLDG 1428</td>
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<td></td>
<td>Course Type: Technical</td>
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<tr>
<td>WLDG 2451</td>
<td>Advanced Gas Tungsten Arc Welding (GTAW)</td>
<td>4</td>
<td>2 (Lec) 6 (Lab)</td>
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<td></td>
<td>This course covers advanced topics in GTAW welding, including welding in</td>
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<td></td>
<td>various positions and directions. Prerequisite or Co-requisite(s): WLDG 1434</td>
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<td>Course Type: Technical</td>
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<tr>
<td>WLDG 2453</td>
<td>Advanced Pipe Welding</td>
<td>4</td>
<td>2 (Lec) 6 (Lab)</td>
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<td></td>
<td>This course covers advanced topics involving welding of pipe using the</td>
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<td>shielded metal arc welding process. Topics include electrode selection,</td>
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<td>equipment setup, and safe shop practices, with an emphasis on weld</td>
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<td>positions 5G and 6G using various electrodes.</td>
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<td></td>
<td>Prerequisite or Co-requisite(s): WLDG 2406</td>
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<td>Course Type: Technical</td>
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</tbody>
</table>
WLDG 2455  Advanced Metallurgy  4 Credits  (3 Lec, 3 Lab)
This is an advanced study of metallurgy as it applies to fabrication processes. Includes structure, identification, and testing of metals. Also covers temperature changes and their effect on metals, properties of metals, and factors affecting fabrication of various metals.
Prerequisite(s): METL 1305, METL 1405, WLDG 1437 or department chair approval
Course Type: Technical

WLDG 2480  Cooperative Education Welding  4 Credits  (1 Lec, 28 Lab)
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(s): Must have Department Chair approval.
Course Type: Technical
WORKPLACE ORGANIZATION (INMT)

INMT 1455  Industrial Power Plant Systems  4 Credits  (3 Lec, 3 Lab)
The focus of this course is to study the principles of operation and maintenance of industrial power plants. Emphasis will be placed on component replacement, tune-up, and field adjustments of engine systems.
Prerequisite(s): CETT 1302

Course Type: Technical
<table>
<thead>
<tr>
<th>Item</th>
<th>Section</th>
<th>Change Description (Before)</th>
<th>Change Description (After)</th>
<th>Date of Update - Effective Term</th>
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<td>1</td>
<td>Courses A-Z</td>
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<td>Removed CPD courses:</td>
<td>6/27/19</td>
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<td>OSHT 1003, PFPB 1091,</td>
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<td>IMED 1040, LMGT 2071</td>
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<td>2</td>
<td>Nursing-Vocational</td>
<td>281-484-1900, 281-998-6150,</td>
<td>281-998-6150, x3592;</td>
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<td>3</td>
<td>General Information</td>
<td>Sandra Ramirez, Vice</td>
<td>Sandra Ramirez, Vice</td>
<td>7/9/2019</td>
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<tr>
<td></td>
<td></td>
<td>Chancellor, Human Resources</td>
<td>Chancellor, Human Resources,</td>
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<td>4</td>
<td>General Information</td>
<td>Vice President, Human</td>
<td>removed</td>
<td>7/9/2019</td>
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<td>Resources, Sandra Ramirez</td>
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<td>(employees) - Co-lead Title</td>
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<td></td>
<td>IX Coordinator</td>
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<td>4620 Fairmont Parkway</td>
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<td>Pasadena, Texas 77504</td>
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<td></td>
<td></td>
<td><a href="mailto:sandra.ramirez@sjcd.edu">sandra.ramirez@sjcd.edu</a></td>
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<td>281-991-2648</td>
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<tr>
<td>5</td>
<td>Health Information</td>
<td>For more information, please</td>
<td>For more information, please</td>
<td>7/9/2019</td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td>email the Program Director at</td>
<td>email <a href="mailto:HealthInformationManagement@sjcd.edu">HealthInformationManagement@sjcd.edu</a></td>
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<tr>
<td></td>
<td>Cancer Data Management</td>
<td><a href="mailto:carla.ruffins@sjcd.edu">carla.ruffins@sjcd.edu</a></td>
<td>or call 281-998-6150, x7237.</td>
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</tbody>
</table>

6. **Student Handbook, Technology Expectations**: added: Recording by Students. The College prohibits students from engaging in inappropriate or unauthorized use of electronic recording devices such as cell phones, cameras, audio/tape recorders, video recorders, electronic tablets, and any other electronic or mechanical devices/systems that are capable of recording audio, human voices, images, or video. For more information about processes, restrictions, and permitted electronic recordings, see the College website for the associated policy and procedure.
Senior citizens 65 and older may audit a credit course without paying up to six (6) credit hours of tuition, but they must pay all applicable fees including the general service and related lab fees or incidental fees.

When the schedule is correct, students select the View My Schedule link at the bottom of the page to have the system calculate the tuition and fees due.

The San Jacinto College eye care technology program is accredited by the Commission on Accreditation for Ophthalmic Medical Programs (CoA-OMP).

The San Jacinto College eye care technology program is accredited by the International Council of Accreditation (ICA).

Students who fail to report a transfer academic status of suspension to gain admission may be immediately withdrawn without any refund of tuition and fees paid.

Students who fail to report a transfer academic status of suspension to gain admission may be immediately withdrawn without any refund of tuition paid.
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<td>In this case, students will have to forfeit all tuition.</td>
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