Paris Junior College PATHWAYS

STEM
- Biology
- Chemistry
- Computer Information Systems
- Engineering
- Geology
- Mathematics
- Physics

SOCIAL & BEHAVIORAL SCIENCES
- Government
- History
- Psychology
- Sociology

PUBLIC SERVICES
- Criminal Justice
- Education
- Kinesiology / Public Health
- Sport and Recreation

BUSINESS
- Accounting/Business Administration
- Agriculture
- Business Management

INDUSTRY
- Air Conditioning & Refrigeration
- Computer Aided Design - 3D Printing
- Cybersecurity
- Electrician
- Gemology
- Horology
- Jewelry
- Mechatronics
- Networking
- Welding

ARTS & HUMANITIES
- Art
- Drama
- English
- Music
- Spanish

HEALTH CAREERS
- Allied Health
- Diagnostic Medical Sonography
- Emergency Medical Services
- Enhanced Nurse Aide
- Medical Records Coding
- Medical Office Management & Billing
- Nursing
- Radiology Technology
- Surgical Technology

5/2024
### Program Outcomes

- Demonstrate the ability to recognize in a work of art chosen randomly from any culture or historical period these three examples of design elements: color harmony, use of perspective, and understanding of dimension.
- Demonstrate the ability to distinguish which cultural, individual, or group style is reflected in a work of art chosen randomly from samples of two-dimensional art and architecture.
- Demonstrate the ability to recognize in a work of art chosen randomly from any cultural or historical period these three design principles: evidence and type of balance, use of scale and proportion, and understand the difference between the two; describe the category of art as abstract, realistic, or non-objective.

### Marketable Skills

- Critical Thinking - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions and approaches to a problem.
- Creative Thinking - Developing, designing or creating new applications, ideas, relationships, systems or products including artistic contributions.
- Active Learning - Understanding the implications of new information for both current and future problem solving and decision making.
- Visualization - The ability to imagine how something will look after it has been created, moved around or when its parts have been rearranged.
- Establishing and Maintaining Interpersonal Relationships - Developing constructive and cooperative working relationships with others and maintaining them over time.

### Transfer Path/Requirements

For Texas A&M Commerce
- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the art major, a minimum of 22 additional SCH must be completed within the discipline of art, with an additional 18 advanced SCH in the disciplines of Art and Photography.
- Students who are considering teaching in high schools or middle schools must take MATH 1314 and follow guidelines set for teacher certification.

### Expected Salary

**Texas wage data:** workers on average earn $49,340; 10% of workers earn $19,080 or less; 10% of workers earn $80,070 or more. **US wage data:** workers on average earn $50,550; 10% of workers earn $20,070 or less; 10% of workers earn $112,970 or more.

### Career Opportunities

**AA Minimum:** Professional Artist; Web Design; Photographer; Book Illustrator; Art Appraiser; Makeup Artist; Scenic Charge Artist.
**BA Minimum:** Marketing Director; Curator; Cultural Consultant; Art Educator; Animator; Graphic Designer; Game Designer; Interior Designer; Art Writer, Editor or Critic. **MFA Minimum:** Art Consultant; Art Therapist.
## Drama

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<td>HIST 1332 - Contemporary Mathematics II</td>
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<tr>
<td>DRAM 1352 - Acting II</td>
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<td>GOVT 2306 - Texas Government</td>
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<tr>
<td>SPAN 2312 - Intermediate Spanish II</td>
</tr>
<tr>
<td>PHYS 1304 - Solar System</td>
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### Marketable Skills
- Basic construction techniques
- Machine and hand sewing
- Painting techniques
- Rigging
- Computer software skills
- Cashiering skills
- Time management
- Written and oral communication
- Relationship building
- Customer service
- Project management
- Design
- Public relations
- Marketing
- Creative thinking
- Critical thinking
- Ability to meet deadlines
- Reading comprehension
- Social perceptiveness
- Social media management

### Program Outcomes
- Show proficiency with the basic usage of hardware and equipment associated to various technical theatre areas in a safe manner while being able to correctly identify and utilize technical theatre terminology.
- Demonstrate proficiency in character development through physical and vocal techniques and character analysis.
- Identify the major stages of development in various dramatic forms in Western and Eastern cultures.

### High School Endorsements
- Arts & Humanities

### Expected Salary
**Texas wage data:** workers on average earn $15.57 per hour; 10% of workers earn $9.64 or less per hour; 10% of workers earn $25.99 or more per hour.  
**US wage data:** workers on average earn $20.43 per hour; 10% of workers earn $9.52 or less per hour; 10% of workers earn $60.41 or more per hour.

### Transfer Path/Requirements
For Texas A&M Commerce
- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the theater major, a minimum of 30 additional SCH must be completed within the discipline of theater.
- Students who are considering teaching in high schools or middle schools must take MATH 1314 and follow guidelines set for teacher certification.

### Career Opportunities
**AA Minimum:** Actor; Box Office Manager; Sales Representative.  
**BA/BFA Minimum:** Director; Voice-Over Actor; Production Coordinator; Events Coordinator; Scenic Charge Artist; Audio Engineer; Entertainment Agent; Stunt Choreographer; Booking Manager; Marketing Director, Market Research Assistant.  
**MA/MFA Minimum:** Secondary Education Instructor; Post-Secondary Instructor; Dramaturg; Film / Theatre Critic; Publications Editor.
### Course Offerings

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
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| First Semester | COSC 1301 - Introduction to Computing  
                 | HIST 1301 - United States History I  
                 | MATH 1332 - Contemporary Mathematics  
                 | EDUC/PSYC 1300 - Learning Framework  
                 | ENGL 1301 - Composition I |
| Second Semester| DRAM 1310 - Introduction to Theater  
                 | HIST 1302 - United States History II  
                 | PSYC 2301 - General Psychology  
                 | SPCH 1315 - Public Speaking  
                 | ENGL 1302 - Composition II |
| Third Semester | ENGL 2322 - British Literature I  
                 | GOVT 2305 - Federal Government  
                 | SPAN 2311 - Intermediate Spanish I  
                 | ENGL 2331 - World Literature  
                 | PHYS 1303 - Stars and Galaxies |
| Fourth Semester| ENGL 2323 - British Literature II  
                 | GOVT 2306 - Texas Government  
                 | SPAN 2312 - Intermediate Spanish II  
                 | HIST 2321 - World Civilizations I  
                 | PHYS 1304 - Solar System |

### Marketable Skills
- Active Listening - Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Critical Thinking - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
- Instructing - Teaching others how to do something.
- Learning Strategies - Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.
- Critical Thinking - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
- Reading Comprehension - Understanding written sentences and paragraphs in work-related documents.
- Speaking - Talking to others to convey information effectively.
- Writing - Communicating effectively in writing as appropriate for the needs of the audience.

### Program Outcomes
- Demonstrate the ability to identify, arrange, and evaluate the effectiveness of a thesis statement.
- Demonstrate the ability to identify Standard Written English (SWE) and apply correct forms of English most widely accepted as clear and proper.
- Demonstrate the ability to identify the specific parts of an essay, distinguish appropriate modes of communicating an idea, and use transitional words and phrases effectively.

### Transfer Path/Requirements
- Student should refer to the catalog of the institution to which he/she plans to transfer for degree requirements.
- Texas A&M Commerce:
  - A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M Commerce.
  - *No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.*
  - For the English major, ten advanced courses are required by TAMU-Commerce: ENG 333 (Technical Writing) plus nine courses in literature, linguistics, and writing.
  - All students who are considering teaching in Texas high schools or middle schools must follow guidelines set for teacher certification, such as taking MATH 1314.

### Career Opportunities
**AA Minimum:** Teacher’s Aide; Bookkeeper; Editor/Publisher/Author; Media Assistant; Social Media Manager; Retail Manager; Human Resources Assistant; Desktop Publisher; Legal Assistant; Marketing Specialist; Public Relations Director; Technical Writer; Journalist; News Reporter; Copywriter; Advertising Manager.  
**BA Minimum:** English Secondary School Teacher.  
**MA Minimum:** English Language and Literature Teacher (post-secondary).
### First Semester - 15 SCH

- MATH 1332 - Contemporary Mathematics
- EDUC/PSYC 1300 - Learning Framework
- HIST 1301 - United States History I
- MUEN 1141 - Chorale
- MUAP 12** - Individual Instruction
- MUSI 1311 - Music Theory I

### Second Semester - 15 SCH

- SOCI 1301 - Introduction to Sociology
- MUSI 1306 - Music Appreciation
- ENGL 1301 - Composition I
- HIST 1302 - United States History II
- MUEN 1141 - Chorale
- MUAP 12** - Individual Instruction

### Third Semester - 15 SCH

- GOVT 2305 - Federal Government
- PHYS 1303 - Stars and Galaxies
- SPCH 1315 - Public Speaking
- ENGL 1302 - Composition II
- MUAP 12** - Individual Instruction
- MUEN 1141 - Chorale

### Fourth Semester - 15 SCH

- GOVT 2306 - Texas Government
- PHYS 1304 - Solar System
- ENGL 2331 - World Literature
- MUSI 1312 - Music Theory II
- MUEN 1141 - Chorale
- MUAP 12** - Individual Instruction

### Marketable Skills

- Musical fluency and literacy
- Skilled public performer
- Ability to work in a team/ensemble
- Extensive creative capacity
- Skilled at macro and micro-analysis
- Ability to handle deadlines

### Program Outcomes

- Identify and classify five familiar aural examples of music each differing by musical texture of composition (monophonic, homophonic, and polyphonic).
- Identify and classify five familiar aural examples of music each differing by genre (sonata, symphony, fugue, etc.) of composition.
- Identify and classify five familiar aural examples of music each differing by style period of composition (Early music, Baroque, Classical, etc.).

### High School Endorsements

- Arts & Humanities

### Expected Salary

**Texas wage data:** workers on average earn $25.37 per hour; 10% of workers earn $8.62 or less per hour; 10% of workers earn $66.36 or more per hour. **US wage data:** workers on average earn $30.39 per hour; 10% of workers earn $11.11 or less per hour; 10% of workers earn $80.70 or more per hour.

### Transfer Path/Requirements

- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the music major, a minimum of 41 SCH must be completed within the discipline of music.
- Students who are considering teaching in high schools or middle schools must take MATH 1314 and follow guidelines set for teacher certification.

### Career Opportunities

**AA Minimum:** Performer; Private Lessons Teacher/Coach; Community Music Group Leader; Church Musician; Primary, Recording Technician. **BA Minimum:** Music Teacher - Secondary. **MA Minimum:** Higher Education.
Spanish

First Semester - 14 SCH
- EDUC/PSYC 1100 - Learning Framework
- ENGL 1301 - Composition I
- HIST 1301 - United States History I
- MATH 1332 - Contemporary Mathematics
- SPAN 1411 - Beginning Spanish I

Second Semester - 16 SCH
- COSC 1301 - Introduction to Computing
- ENGL 1302 - Composition II
- HIST 1302 - United States History II
- SOCI 1301 - Introduction to Sociology
- SPAN 1412 - Beginning Spanish II

Third Semester - 15 SCH
- PHYS 1303 - Stars and Galaxies
- ENGL 2331 - World Literature
- GOVT 2305 - Federal Government
- SPAN 2311 - Intermediate Spanish I
- SPCH 1315 - Public Speaking

Fourth Semester - 15 SCH
- PHYS 1304 - Solar System
- MUSI 1306 - Music Appreciation
- GOVT 2306 - Texas Government
- SPAN 2312 - Intermediate Spanish II
- PHED 1301 - Foundations of Kinesiology

Marketable Skills
- Active Listening - Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Critical Thinking - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
- Reading Comprehension - Understanding written sentences and paragraphs in work related documents.
- Speaking - Talking to others to convey information effectively.
- Writing - Communicating effectively in writing as appropriate for the needs of the audience.

Program Outcomes
- Demonstrate proficient listening skills resulting in understanding of most routine questions, statements, commands, and the gist of everyday conversations on non-technical subjects.
- Demonstrate proficiency in reading the Spanish language resulting in an understanding of most routine expressions on familiar subjects with the aid of references.
- Demonstrate the ability to respond orally with comprehension to most routine questions, statements, and commands, to use vocabulary sufficient to express oneself simply, and to discuss situations relevant to everyday life.
- Demonstrate the ability to produce essential messages in writing and the ability to use basic sentence construction and simple vocabulary.
- Show evidence of knowledge and awareness of the history and culture of another people within a range of situations.
- Demonstrate knowledge about how a language operates and skills that result in the application of the language-learning process to the study of other languages.

High School Endorsements
- Arts & Humanities

Expected Salary
- Texas wage data: workers on average earn $50,770; 10% of workers earn $32,420 or less; 10% of workers earn $86,260 or more. US wage data: workers on average earn $52,330; 10% of workers earn $29,740 or less; 10% of workers earn $96,480 or more.

Career Opportunities
- AA Minimum: Teacher's Aide, Educational Interpreter, Bilingual Nurse, Medical Interpreter, Health Care Assistant, Health Care Administrative Assistant, Human Resources Assistant, Customer Service Representative, Retail Manager, Bank Teller, Administrative Assistant, Desktop Publisher, Paraprofessional Interpreter, Cultural Events Coordinator, Travel Agent, Court Interpreter, Legal Assistant, Officer Social Media Assistant, Flight Attendant. BA Minimum: Technical Writer, Bilingual/Dual/Foreign Language Educator, Children's Author, Health Care Administrator, International Business, International Relations Consultant, Foreign Exchange Trader, Human Resources Director, Recruiter, Sales & Service Consultant, Journalist, Reporter, Social Media Manager, Hospitality Manager, National Security Agent. MA Minimum: College Instructor/Professor.
### Accounting/Business Administration

**AS (60 SCH*)**

*Semester Credit Hour 5/2024*

#### First Semester - 15 SCH
- BCIS 1305 - Business Computer Applications
- ENGL 1301 - Composition I
- HIST 1301 - United States History I
- MATH 1324 - Mathematics for Business & Social Sciences
- BUSI 1301 - Business Principles

#### Second Semester - 15 SCH
- MUSI 1306 - Music Appreciation
- HIST 1302 - United States History II
- MATH 1325 - Calculus for Business & Social Sciences
- ENGL 1302 - Composition II
- SPCH 1321 - Business & Professional Communication

#### Third Semester - 15 SCH
- ACCT 2301 - Principles of Financial Accounting
- ECON 2301 - Principles of Macroeconomics
- BUSI 2301 - Business Law
- BIOL 1322 - Nutrition & Diet Therapy
- GOVT 2305 - Federal Government

#### Fourth Semester - 15 SCH
- ECON 2302 - Principles of Microeconomics
- GOVT 2306 - Texas Government
- PHYS 1303 - Stars and Galaxies
- ACCT 2302 - Principles of Managerial Accounting
- COMM 1307 - Introduction to Mass Communications

#### Marketable Skills
- Critical Thinking - Ability to process information and apply theoretical insights in an applied industry context.
- Personal and Social Responsibility - Understands the importance of ethical decision-making in the business world and within the accounting context; monitors performance of self, other individuals, or organizations to make improvements or take corrective action.
- Judgment and Decision Making - Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- Complex Problem solving - Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

#### Program Outcomes
- Evaluate economic data.
- Apply economic reasoning to analysis of current events.
- Demonstrate an understanding of economic terminology and concepts.
- Analyze and complete journal entries utilizing generally accepted accounting principles.
- Categorize accounts to prepare income statement, statement of owner's equity, statement of cash flows, and balance sheet.
- Evaluate company production, profitability and cost using managerial accounting tools.

#### High School Endorsements
- Business and Industry

#### Expected Salary
**Texas wage data:** workers on average earn $40,630; 10% of workers earn $24,190 or less; 10% of workers earn $60,970 or more.
**US wage data:** workers on average earn $41,230; 10% of workers earn $25,870 or less; 10% of workers earn $62,410 or more.

#### Transfer Path/Requirements
Students pursuing a CPA should consider a BBA and MS in Accounting. Other students may wish to pursue a BBA degree in any of the following: Finance, Economics, Management, Management Information Systems, Marketing, Business Analytics, or General Business.

#### Career Opportunities
**AS Minimum:** Entrepreneur / Business owner; Office Assistant; Customer Service Representative. **BS Minimum:** Accountant; Marketing Director; Analyst; Business Operations Manager; Financial Advisor; Banker; Sales Manager; Consultant. **MS Minimum:** Economist.
### Program Outcomes

- Differentiate between traditional and alternative agricultural production.
- Demonstrate knowledge of basic terminology and understanding of major agricultural concepts.
- Understand general market characteristics, plant propagation techniques, soil survey maps and types/characteristics, and scientific animal production, management, & marketing.

### Transfer Path/Requirements

For Texas A&M Commerce:

- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the agricultural science major, the student must go on to take another 60 hours, mostly consisting of agricultural science, plant science, and additional life and physical sciences. For the agribusiness major, the student must take an additional 60 hours, mostly consisting of agricultural courses and business courses.

*Transfer Path Options

- BIOL 1406 & MATH 1314 are recommended for Animal Transfer Path Options Science, Horticulture/Plant Science, and Pre-Veterinary.
- MATH 1324 & Science Core for Agri-Business and AgEducation
- CHEM 1405 for Agri-Business, Agri-Science and AgEducation

### Marketable Skills

- Critical Thinking/Problem Solving to Better Consider Economic Factors
- Written/Oral Communication
- Empirical/Quantitative Reasoning to Make Management Decisions
- Teamwork/Collaboration - Use Logic & Reasoning to Identify Strengths
- Organization/Time Management to Improve Planning
- Research/Planning - Analyze Information & Evaluate Results to Choose Best Solutions

### Career Opportunities

**AS Minimum**: Agricultural Products Insurance Specialist; Engineer; Park Ranger; Landscaper; Ranch Manager. **BS Minimum**: Arborist; Agricultural Inspector; Horticulturalist; Botanist; Conservationist; Forest Ranger; Soil and Plant Scientist; Agricultural Food Scientist; Agronomist; Wildlife Manager, County Extension Agent, Agriculture Teacher. **MS Minimum**: Agriculture Instructor; Agricultural Engineer.

**Expected Salary**

**Texas wage data**: workers on average earn $78,690; 10% of workers earn $44,340 or less; 10% of workers earn $158,340 or more.

**US wage data**: workers on average earn $84,410; 10% of workers earn $51,160 or less; 10% of workers earn $166,620 or more.

### High School Endorsements

Business and Industry
First Semester - 15 SCH
BCIS 1305 - Business Computer Applications
ACNT 1303 - Introduction to Accounting I
BUSG 1301 - Introduction to Business
MRKG 1311 - Principles of Marketing
ITSW 1304 - Introduction to Spreadsheets

Second Semester - 15 SCH
ACNT 1311 - Introduction to Computerized Accounting
BMGT 1327 - Principles of Management
MUSI 1306 - Music Appreciation
HRPO 2301 - Human Resources Management
MATH 1332 - Contemporary Mathematics

Third Semester - 15 SCH
ENGL 1301 - Composition I
ACCT 2301 - Principles of Financial Accounting
POFT 2312 - Business Correspondence & Communication
ITSW 2334 - Advanced Spreadsheets
ECON 2301 - Principles of Macroeconomics

Fourth Semester - 15 SCH
ACCT 2302 - Principles of Managerial Accounting-
BUSG 2309 - Small Business Management/Entrepreneurship
BUSI 2301 - Business Law
ECON 2302 - Principles of Microeconomics
POFT 1313 - Professional Workforce Preparation*

Program Outcomes
• Students will be able to apply business concepts, practices, and/or techniques to effectively manage an organization.
• Students will be able to evaluate profitability utilizing the accounting cycle in preparation of financial statements.
• Demonstrate proficiency using industry application software.

Marketable Skills
• Review financial statements, sales or activity reports to measure productivity or identify program improvement.
• Direct and coordinate activities of production, pricing, sales, or distribution of products.
• Direct administrative activities directly related to making products or providing services.
• Prepare staff work schedules and assign specific duties.
• Monitor suppliers to ensure efficient and effective delivery of goods or services within budgetary limits.

Business Operations Manager; Account Executive; Entrepreneur; Office Manager; Sales Representative; Human Resources Specialist; Bookkeeping, Accounting and Audit Clerk; Management Analyst; Marketing Manager.

High School Endorsements
Business and Industry

Expected Salary
Texas wage data: workers on average earn $97,670; 10% of workers earn $39,260 or less; 10% of workers earn $208,000 or more.

Additional Educational Opportunities
Students may continue their education through a BAAS degree.

Expected Salary
Texas wage data: workers on average earn $97,670; 10% of workers earn $39,260 or less; 10% of workers earn $208,000 or more.

Career Opportunities
Business Operations Manager; Account Executive; Entrepreneur; Office Manager; Sales Representative; Human Resources Specialist; Bookkeeping, Accounting and Audit Clerk; Management Analyst; Marketing Manager.
First Semester - 15 SCH

- BCIS 1305 - Business Computer Applications
- BUSG 1301 - Introduction to Business
- ACNT 1303 - Introduction to Accounting I
- MRKG 1311 - Principles of Marketing
- IITSW 1304 - Introduction to Spreadsheets

Second Semester - 15 SCH

- ACNT 1311 - Introduction to Computerized Accounting
- BMGT 1327 - Principles of Management
- BUSG 2309 - Small Business Management/Entrepreneurship
- HRPO 2301 - Human Resources Management
- ACCT 2301 - Principles of Financial Accounting

Third Semester - 15 SCH

- BUSI 2301 - Business Law
- ECON 2301 - Principles of Macroeconomics
- POFT 2312 - Business Correspondence & Communication
- ACCT 2302 - Principles of Managerial Accounting
- POFT 1313 - Professional Workforce Preparation

Program Outcomes

- Students will be able to apply business concepts, practices, and/or techniques to effectively manage an organization.
- Students will be able to evaluate profitability utilizing the accounting cycle in preparation of financial statements. Demonstrate proficiency using industry application software.

Marketable Skills

- Prepare detailed reports on audit findings.
- Report to management about asset utilization and audit results, and recommend changes in operations and financial activities.
- Collect and analyze data to detect deficient controls.
- Inspect account books and accounting systems for efficiency, effectiveness, and use of accepted accounting procedures to record transactions.
- Supervise auditing of establishments, and determine scope of investigation required.

High School Endorsements

- Business and Industry

Additional Educational Opportunities

- Students may continue their education through an AAS in Business Management and BAAS degree.

Expected Salary

Texas wage data: workers on average earn $73,420; 10% of workers earn $46,690 or less; 10% of workers earn $123,770 or more.

Career Opportunities

- Business Operations Manager; Management Analyst; Entrepreneur; Human Resources Specialist; Sales Representative; Account Executive; Bookkeeping, Accounting and Audit Clerk; Office Manager; Marketing Manager.
Business Office Accounting

First Semester - 12 SCH
- BUSG 1301 - Introduction to Business
- ACNT 1303 - Introduction to Accounting I
- ITSW 1304 - Introduction to Spreadsheets
- POFT 2312 - Business Correspondence & Communication

Second Semester - 12 SCH
- BCIS 1305 - Business Computer Applications
- ACNT 1311 - Introduction to Computerized Accounting
- ACCT 2301 - Principles of Financial Accounting
- POFT 1313 - Professional Workforce Preparation

Marketable Skills
- Prepare detailed reports on audit findings.
- Report to management about asset utilization and audit results, and recommend changes in operations and financial activities.
- Collect and analyze data to detect deficient controls.
- Inspect account books and accounting systems for efficiency, effectiveness, and use of accepted accounting procedures to record transactions.
- Supervise auditing of establishments, and determine scope of investigation required.

Program Outcomes
- Perform basic functions of entry level bookkeeping / accounting positions.
- Evaluate profitability utilizing the accounting cycle in preparation of financial statements.
- Use computer and related tools to perform financial reports.

High School Endorsements
- Business and Industry

Expected Salary
- Texas wage data: workers on average earn $40,630; 10% of workers earn $24,190 or less; 10% of workers earn $60,970 or more.

Additional Educational Opportunities
- Students may continue their education through an AAS in Business Management and BAAS degree.

Career Opportunities
- Bookkeeper, Accounting Clerk, Accounting Assistant; Accounts Payable Clerk; Bank Teller.
First Semester - 9 SCH
ACNT 1303 - Introduction to Accounting I
MRKG 1311 - Principles of Marketing
BUSG 1301 - Introduction to Business

Second Semester - 9 SCH
BUSG 2309 - Small Business Management/Entrepreneurship
BUSI 2301 - Business Law
HRPO 2301 - Human Resources Management

Marketable Skills
- Analyzing information and evaluating results to choose the best solution and solve problems.
- Communicating with Supervisors, Peers, or Subordinates by telephone, in written form, e-mail, or in person.
- Gathering Information from all relevant sources.
- Coordinating the Work and Activities of Others
- Guiding, Directing, and Motivating Subordinates

Program Outcomes
- Students will be able to apply business concepts, practices, and/or techniques to effectively manage an organization.
- Students will be able to evaluate company production, profitability and cost using managerial accounting tools.
- Demonstrate proficiency using industry application software.

High School Endorsements
Business and Industry

Additional Educational Opportunities
Students may continue their education through an AAS in Business Management and BAAS degree.

Expected Salary
Texas wage data: workers on average earn $97,670; 10% of workers earn $39,260 or less; 10% of workers earn $208,000 or more.

Career Opportunities
Entrepreneur
### Course Offerings

#### First Semester - 15 SCH
- HART 1301 - Basic Electricity for HVAC
- HART 1307 - Refrigeration Principles
- HART 1310 - HVAC Shop Practices and Tools
- HART 1303 - Air Conditioning Control Principles
- PSYC 1300 - Learning Framework

#### Second Semester - 15 SCH
- HART 1341 - Residential Air Conditioning
- HART 1345 - Gas and Electric Heating
- HART 2338 - Air Conditioning Installation & Startup
- HART 2349 - Heat Pumps
- ENGL 1301 - Composition I

#### Third Semester - 15 SCH
- HART 2331 - Advanced Electricity for HVAC
- HART 2336 - Air Conditioning Troubleshooting
- HART 2345 - Residential Air Conditioning Systems Design
- COSC 1301 - Introduction to Computing
- MATH 1332 - Contemporary Mathematics

#### Fourth Semester - 15 SCH
- HART 2344 - Advanced Air Conditioning Controls
- HART 2341 - Commercial Air Conditioning
- HART 1356 - EPA Recovery Certification Preparation
- DRAM 1310 - Theater Appreciation
- SPCH 1321 - Business & Professional Communication

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### Marketable Skills

- Test electrical circuits or components for continuity, using electrical test equipment.
- Repair or replace defective equipment, components, or wiring.
- Discuss heating or cooling system malfunctions with users to isolate problems or to verify that repairs corrected malfunctions.
- Connect heating or air conditioning equipment to fuel, water, or refrigerant source to form complete circuit.
- Install, connect, or adjust thermostats, humidistats, or timers.
- EPA recovery and certification.
- HVAC and Refrigeration Controls.
- Troubleshooting air conditioning and refrigeration systems.
- Installation and service of residential and commercial cooling and heating systems.
- Heat load calculation and duct design.

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### Program Outcomes

- Install, troubleshoot and repair refrigerators, freezers, and window air conditioners.
- Install, troubleshoot and repair split or package residential air conditioning systems, including electric furnaces, gas furnaces and heat pumps.
- Install, troubleshoot and repair split and package commercial air conditioning and refrigeration systems.
- Install, program, troubleshoot and repair residential, commercial and industrial Distributed Digital Control Systems.
- Become certified to handle CFC’s, HCFC’s, and HFC’s.

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### Expected Salary

**Texas wage data:** workers on average earn $48,030; 10% of workers earn $30,190 or less; 10% of workers earn $72,010 or more.

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### Additional Educational Opportunities

Bachelor of Arts in Applied Science

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### Career Opportunities

Consulting; Controls Technician; Customer Service; Dispatcher/Coordinator; Distributor; Distributor Counter Sales; Energy Auditor; Equipment Performance Testing Specialist; Estimator; Field Technical Specialist; Field Supervisor; HVAC Equipment Dealer; IAQ Inspector; Inside Sales and Outside Sales; Installer; Product Technical Support; Project Manager; Public Relations; Purchasing; Sheet Metal Fabrication; Parts Store Manager; Technical Training Instructor; Shop Maintenance; Service Technician; Contractor.
### Distributed Digital Control in Air Conditioning

**Certificate (51 SCH*)**

*Semester Credit Hour

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<tr>
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<tr>
<td>HART 1307 - Refrigeration Principles</td>
<td>HART 2349 - Heat Pumps</td>
</tr>
<tr>
<td>HART 1310 - HVAC Shop Practices and Tools</td>
<td>HART 2338 - Air Conditioning Installation &amp; Startup</td>
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<td>HART 2331 - Advanced Electricity for HVAC</td>
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</tr>
<tr>
<td>HART 2336 - Air Conditioning Troubleshooting</td>
<td>HART 2341 - Commercial Air Conditioning</td>
</tr>
<tr>
<td>HART 2345 - Residential Air Conditioning Systems Design</td>
<td>HART 2334 - Advanced Air Conditioning Controls</td>
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</tr>
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<td>HART 2350 - HVAC Zone Controls</td>
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</tr>
</tbody>
</table>

### Marketable Skills
- Modify, maintain, or repair electronics equipment or systems to ensure proper functioning.
- Replace defective components or parts, using hand tools and precision instruments.
- Set up and operate specialized or standard test equipment to diagnose, test, or analyze the performance of electronic components, assemblies, or systems.
- Read blueprints, wiring diagrams, schematic drawings, or engineering instructions for assembling electronics units, applying knowledge of electronic theory and components.
- Identify and resolve equipment malfunctions, working with manufacturers or field representatives as necessary to procure replacement parts.
- EPA recovery and certification.
- HVAC and Refrigeration controls.
- Installation, programming, service, and troubleshooting of Distributed Digital Control Systems.
- Heat load calculation and duct design.

### Program Outcomes
- Install, troubleshoot and repair refrigerators, freezers, and window air conditioners.
- Install, troubleshoot and repair split or package residential air conditioning systems, including electric furnaces, gas furnaces and heat pumps.
- Install, troubleshoot and repair split and package commercial air conditioning and refrigeration systems.
- Install, program, troubleshoot and repair residential, commercial and industrial Distributed Digital Control Systems.
- Become certified to handle CFC’s, HCFC’s, and HFC’s.

### High School Endorsements
- Business and Industry

### Expected Salary
**Texas wage data:** workers on average earn $69,310; 10% of workers earn $41,680 or less; 10% of workers earn $99,200 or more.

### Additional Educational Opportunities
- Associate of Applied Science in Air Conditioning

### Career Opportunities
- Consulting; Controls Technician; Customer Service; Dispatcher/Coordinator; Distributor; Distributor Counter Sales; Energy Auditor; Equipment Performance Testing Specialist; Estimator; Field Technical Specialist; Field Supervisor; HVAC Equipment Dealer; IAQ Inspector; Inside Sales and Outside Sales; Installer; Product Technical Support; Project Manager; Public Relations; Purchasing; Sheet Metal Fabrication; Parts Store Manager; Technical Training Instructor; Shop Maintenance; Service Technician; Contractor.
## Air Conditioning

**Certificate (42 SCH*)**

*Semester Credit Hour

### First Semester - 12 SCH
- HART 1301 - Basic Electricity for HVAC
- HART 1303 - Air Conditioning Control Principles
- HART 1307 - Refrigeration Principles
- HART 1310 - HVAC Shop Practices and Tools

### Second Semester - 12 SCH
- HART 1341 - Residential Air Conditioning
- HART 1345 - Gas and Electric Heating
- HART 2338 - Air Conditioning Installation & Startup
- HART 2349 - Heat Pumps

### Third Semester - 9 SCH
- HART 2331 - Advanced Electricity for HVAC
- HART 2336 - Air Conditioning Troubleshooting
- HART 2345 - Residential Air Conditioning Systems Design

### Fourth Semester - 9 SCH
- HART 1356 - EPA Recovery Certification Preparation
- HART 2341 - Commercial Air Conditioning
- HART 2334 - Advanced Air Conditioning Controls

### Marketable Skills
- Test electrical circuits or components for continuity, using electrical test equipment.
- Repair or replace defective equipment, components, or wiring.
- Discuss heating or cooling system malfunctions with users to isolate problems or to verify that repairs corrected malfunctions.
- Connect heating or air conditioning equipment to fuel, water, or refrigerant source to form complete circuit.
- Install, connect, or adjust thermostats, humidistats, or timers.
- EPA recovery and certification.
- HVAC and Refrigeration controls.
- Troubleshooting air conditioning and refrigeration systems.
- Installation and service of residential and commercial cooling and heating systems.
- Heat load calculation and duct design.

### Program Outcomes
- Install, troubleshoot and repair refrigerators, freezers, and window air conditioners.
- Install, troubleshoot and repair split or package residential air conditioning systems, including electric furnaces, gas furnaces and heat pumps.
- Install, troubleshoot and repair split and package commercial air conditioning and refrigeration systems.
- Install, program, troubleshoot and repair residential, commercial and industrial Distributed Digital Control Systems.
- Become certified to handle CFC's, HCFC's, and HFC's.

### High School Endorsements
- Business and Industry

### Expected Salary
**Texas wage data:**
- Workers on average earn $48,030; 10% of workers earn $30,190 or less; 10% of workers earn $72,010 or more.

### Additional Educational Opportunities
- Associate of Applied Science in Air Conditioning

### Career Opportunities
- Consulting; Controls Technician; Customer Service; Dispatcher/Coordinator; Distributor; Distributor Counter Sales; Energy Auditor; Equipment Performance Testing Specialist; Estimator; Field Technical Specialist; Field Supervisor; HVAC Equipment Dealer; IAQ Inspector; Inside Sales and Outside Sales; Installer; Product Technical Support; Project Manager; Public Relations; Purchasing; Sheet Metal Fabrication; Parts Store Manager; Technical Training Instructor; Shop Maintenance; Service Technician; Contractor.
# Air Conditioning Installer

**Certificate (21 SCH*)**

*Semester Credit Hour

## First Semester - 12 SCH

- HART 1301 - Basic Electricity for HVAC
- HART 1303 - Air Conditioning Control Principles
- HART 1307 - Refrigeration Principles
- HART 1310 - HVAC Shop Practices and Tools

## Second Semester - 9 SCH

- HART 1341 - Residential Air Conditioning
- HART 1345 - Gas and Electric Heating
- HART 2338 - Air Conditioning Installation & Startup

### Marketable Skills

- Test electrical circuits or components for continuity, using electrical test equipment.
- Repair or replace defective equipment, components, or wiring.
- Connect heating or air conditioning equipment to fuel, water, or refrigerant source to form complete circuit.
- Install, connect, or adjust thermostats, humidistats, or timers.
- HVAC and Refrigeration controls.
- Installation and service of residential and commercial cooling and heating systems.

### Program Outcomes

- Install and repair refrigerators, freezers, and window air conditioners.
- Install and repair split or package residential air conditioning systems, including electric furnaces, gas furnaces and heat pumps.

### High School Endorsements

**Business and Industry**

### Expected Salary

**Texas wage data:** workers on average earn $48,030; 10% of workers earn $30,190 or less; 10% of workers earn $72,010 or more.

### Additional Educational Opportunities

**Associate of Applied Science in Air Conditioning**

### Career Opportunities

Consulting; Controls Technician; Customer Service; Dispatcher/Coordinator; Distributor; Distributor Counter Sales; Energy Auditor; Equipment Performance Testing Specialist; Estimator; Field Technical Specialist; Field Supervisor; HVAC Equipment Dealer; IAQ Inspector; Inside Sales and Outside Sales; Installer; Product Technical Support; Project Manager; Public Relations; Purchasing; Sheet Metal Fabrication; Parts Store Manager; Technical Training Instructor; Shop Maintenance; Service Technician; Contractor.
# Computer-Aided Design

**AAS (60 SCH*)**

5/2024

## First Semester - 15 SCH

- DFTG 1309 - Basic Computer-Aided Drafting
- DFTG 1305 - Technical Drafting
- DFTG 2319 - Intermediate Computer-Aided Drafting
- DFTG 1325 - Blueprint Reading and Sketching
- PSYC 1300 - Learning Framework

## Second Semester - 15 SCH

- DFTG 1345 - Parametric Modeling and Design
- DFTG 2312 - Technical Illustration and Presentation
- DFTG 1333 - Mechanical Drafting
- DFTG 2340 - Solid Modeling/Design
- SPCH 1321 - Business & Professional Communication

## Third Semester - 15 SCH

- DFTG 1317 - Architectural Drafting - Residential
- DFTG 1330 - Civil Drafting I
- DFTG 2331 - Advanced Technologies in Architectural Design and Drafting
- DFTG 2328 - Architectural Drafting - Commercial
- ENGL 1301 - Composition I

## Fourth Semester - 15 SCH

- DFTG 2332 - Advanced Computer-Aided Drafting
- DFTG 2323 - Pipe Drafting
- DFTG 2338 - Final Project - Advanced Drafting
- MATH 1314 - College Algebra
- DRAM 1310 - Theater Appreciation

## Marketable Skills

- Autodesk AutoCAD Civil 3D; Autodesk Revit; Bentley MicroStation; Trimble SketchUp Pro; Adobe Creative Suite; C; Microsoft.NET Framework; Adobe Illustrator; Adobe Photoshop; ESRI ArcGIS software; ESRI ArcView; Geomechanical design analysis GDA software; Topographic map software; Microsoft PowerPoint; Produce drawings, using computer-assisted drafting systems; Draft plans and detailed drawings for structures, installations, and construction projects; Coordinate structural, electrical, and mechanical designs and determine a method of presentation to graphically represent building plans; Analyze building codes, by-laws, space and site requirements, and other technical documents and reports to determine their effect on architectural designs.

## Program Outcomes

- Operate a 2D CAD Design program.
- Read and interpret blueprints.
- Design and document in 3D with a parametric modeling program.
- Create construction and manufacturing documents using various CAD programs.
- Operate and maintain a 3D printer.

## High School Endorsements

- Business and Industry

## Expected Salary

**Texas wage data:** workers on average earn $54,880; 10% of workers earn $33,420 or less; 10% of workers earn $81,880 or more.

## Additional Education Opportunities

- Bachelor of Arts in Applied Science

## Career Opportunities

Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects. Use knowledge of building materials, engineering practices, and mathematics to complete drawings. Architectural Designer, Architectural Drafter, Architectural Draftsman, Civil Drafter, CAD Designer, CADD Drafter, Drafting Technician, Draftsman, Draftsperson, Rapid prototyping technician, Parametric modeler.
### First Semester - 12 SCH
- DFTG 1309 - Basic Computer-Aided Drafting
- DFTG 1305 - Technical Drafting
- DFTG 2319 - Intermediate Computer-Aided Drafting
- DFTG 1325 - Blueprint Reading and Sketching

### Second Semester - 12 SCH
- DFTG 1345 - Parametric Modeling and Design
- DFTG 2312 - Technical Illustration and Presentation
- DFTG 1333 - Mechanical Drafting
- DFTG 2340 - Solid Modeling/Design

### Third Semester - 12 SCH
- DFTG 1317 - Architectural Drafting - Residential
- DFTG 1330 - Civil Drafting I
- DFTG 2331 - Advanced Technologies in Architectural Design and Drafting
- DFTG 2328 - Architectural Drafting - Commercial

### Fourth Semester - 9 SCH
- DFTG 2332 - Advanced Computer-Aided Drafting
- DFTG 2323 - Pipe Drafting
- DFTG 2338 - Final Project - Advanced Drafting

### Marketable Skills
- Operate a 2D CAD Design program.
- Read and interpret blueprints.
- Design and document in 3D with a parametric modeling program.
- Create construction and manufacturing documents using various CAD programs.
- Operate and maintain a 3D printer.

- Autodesk AutoCAD Civil 3D; Autodesk Revit; Bentley MicroStation; Trimble SketchUp Pro; Adobe Creative Suite; C; Microsoft.NET Framework; Adobe Illustrator; Adobe Photoshop; ESRI ArcGIS software; ESRI ArcView; Geomechanical design analysis GDA software; Topographic map software; Microsoft PowerPoint; Produce drawings, using computer-assisted drafting systems; Draft plans and detailed drawings for structures, installations, and construction projects; Coordinate structural, electrical, and mechanical designs and determine a method of presentation to graphically represent building plans; Analyze building codes, by-laws, space and site requirements, and other technical documents and reports to determine their effect on architectural designs.

### Program Outcomes
- Operate a 2D CAD Design program.
- Read and interpret blueprints.
- Design and document in 3D with a parametric modeling program.
- Create construction and manufacturing documents using various CAD programs.
- Operate and maintain a 3D printer.

### Expected Salary
**Texas wage data:** workers on average earn $54,880; 10% of workers earn $33,420 or less; 10% of workers earn $81,880 or more.

### High School Endorsements
- Business and Industry

### Additional Educational Opportunities
- Associate in Applied Science, Bachelor of Arts in Applied Science

### Career Opportunities
- CAD Technician; Architectural CAD Designer; Mechanical CAD Designer; Civil CAD Designer; Pipe CAD Designer; Electrical CAD Designer; Surveyor CAD Technician; Graphics Designer; Rapid Prototyping Technician; Parametric Modeler; Building Information Modeler; Landscape Designer Technician; Interior Designer Technician.
First Semester - 12 SCH

DFTG 1309 - Basic Computer-Aided Drafting
DFTG 1305 - Technical Drafting
DFTG 2319 - Intermediate Computer-Aided Drafting
DFTG 1325 - Blueprint Reading and Sketching

Second Semester - 12 SCH

DFTG 1345 - Parametric Modeling and Design
DFTG 2312 - Technical Illustration and Presentation
DFTG 1333 - Mechanical Drafting
DFTG 2340 - Solid Modeling/Design

Third Semester - 12 SCH

DFTG 1317 - Architectural Drafting - Residential
DFTG 1330 - Civil Drafting I
DFTG 2331 - Advanced Technologies in Architectural Design and Drafting
DFTG 2328 - Architectural Drafting - Commercial

Marketable Skills

Autodesk AutoCAD Civil 3D; Autodesk Revit; Bentley MicroStation; Trimble SketchUp Pro; Adobe Creative Suite; C; Microsoft.NET Framework; Adobe Illustrator; Adobe Photoshop; ESRI ArcGIS software; ESRI ArcView; Geomechanical design analysis GDA software; Topographic map software; Microsoft PowerPoint; Produce drawings, using computer-assisted drafting systems; Draft plans and detailed drawings for structures, installations, and construction projects; Coordinate structural, electrical, and mechanical designs and determine a method of presentation to graphically represent building plans; Analyze building codes, by-laws, space and site requirements, and other technical documents and reports to determine their effect on architectural designs.

Program Outcomes

• Operate a 2D CAD Design program.
• Read and interpret blueprints.
• Design and document in 3D with a parametric modeling program.
• Create construction and manufacturing documents using various CAD programs.
• Operate and maintain a 3D printer.

High School Endorsements

Business and Industry

Additional Educational Opportunities

Associate in Applied Science, Bachelor of Arts in Applied Science

Expected Salary

Texas wage data: workers on average earn $54,880; 10% of workers earn $33,420 or less; 10% of workers earn $81,880 or more.

Career Opportunities

CAD Technician; Architectural CAD Designer; Mechanical CAD Designer; Civil CAD Designer; Pipe CAD Designer; Electrical CAD Designer; Surveyor CAD Technician; Graphics Designer; Rapid Prototyping Technician; Parametric Modeler; Building Information Modeler; Landscape Designer Technician; Interior Designer Technician.
First Semester - 12 SCH

DFTG 1309 - Basic Computer-Aided Drafting  
DFTG 1305 - Technical Drafting  
DFTG 2319 - Intermediate Computer-Aided Drafting  
DFTG 1325 - Blueprint Reading and Sketching

Second Semester - 15 SCH

DFTG 1345 - Parametric Modeling and Design  
DFTG 2312 - Technical Illustration and Presentation  
DFTG 1333 - Mechanical Drafting  
DFTG 2340 - Solid Modeling/Design  
DFTG 2332 - Advanced Computer-Aided Drafting

Marketable Skills

Autodesk AutoCAD Civil 3D; Autodesk Revit; Bentley MicroStation; Trimble SketchUp Pro; Adobe Creative Suite; C; Microsoft.NET Framework; Adobe Illustrator; Adobe Photoshop; ESRI ArcGIS software; ESRI ArcView; Geomechanical design analysis GDA software; Topographic map software; Microsoft PowerPoint; Produce drawings, using computer-assisted drafting systems; Draft plans and detailed drawings for structures, installations, and construction projects; Coordinate structural, electrical, and mechanical designs and determine a method of presentation to graphically represent building plans; Analyze building codes, by-laws, space and site requirements, and other technical documents and reports to determine their effect on architectural designs.

Program Outcomes

- Operate a 2D CAD Design program.
- Read and interpret blueprints.
- Design and document in 3D with a parametric modeling program.
- Create construction and manufacturing documents using various CAD programs.
- Operate and maintain a 3D printer.

High School Endorsements

Business and Industry

Additional Educational Opportunities

Associate in Applied Science, Bachelor of Arts in Applied Science

Expected Salary

Texas wage data: workers on average earn $54,880; 10% of workers earn $33,420 or less; 10% of workers earn $81,880 or more.

Career Opportunities

CAD Technician; Architectural CAD Designer; Mechanical CAD Designer; Civil CAD Designer; Pipe CAD Designer; Electrical CAD Designer; Surveyor CAD Technician; Graphics Designer; Rapid Prototyping Technician; Parametric Modeler; Building Information Modeler; Landscape Designer Technician; Interior Designer Technician.
First Semester - 15 SCH

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>CNBT 2310</td>
<td>Commercial/Industrial Blueprint Reading</td>
</tr>
<tr>
<td>ELPT 1411</td>
<td>Basic Electrical Theory</td>
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<tr>
<td>ELPT 1221</td>
<td>Introduction to Electrical Safety &amp; Tools</td>
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<tr>
<td>ELPT 1225</td>
<td>National Electrical Code</td>
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<td>ELPT 1429</td>
<td>Residential Wiring</td>
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Second Semester - 15 SCH

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<th>Course Code</th>
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<td>ELPT 1357</td>
<td>Industrial Wiring</td>
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<tr>
<td>ELPT 2225</td>
<td>National Electrical Code II</td>
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<tr>
<td>ELPT 1341</td>
<td>Motor Control</td>
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<tr>
<td>ELPT 1445</td>
<td>Commercial Wiring</td>
</tr>
<tr>
<td>ELPT 2323</td>
<td>Transformers</td>
</tr>
</tbody>
</table>

** Marketable Skills**

- Plan layout and installation of electrical wiring, equipment, or fixtures
- Acquire and evaluate information
- Interpret and communicate information
- Electrical construction management
- Residential, commercial, industrial blueprint reading
- OSHA - Construction and General Industries
- Electrical Safety and Tools
- National Electrical Code
- Residential load calculation and service entrance sizing
- Commercial electrical load calculation
- Overcurrent protection
- Raceway panel installation
- Single and poly-phase DC and AC motors, generators and alternators
  Industrial wiring, motor circuits, raceways and busways
- Single and three-phase motors and transformers
- Transformer banking, power factor correction and protective devices.

** Program Outcomes**

- Apprentice Electrician
- Trouble shooting Residential Electrical Systems
- Trouble shooting Commercial Electrical Systems
- Trouble shooting Industrial Electrical Systems
- Residential Electrician (Apprentice)
- Commercial Electrician (Apprentice)
- Industrial Electrician (Apprentice)
- Apprentice Electrician Conduit Bending

**High School Endorsements**

Business and Industry

** Expected Salary**

**Texas wage data:** workers on average earn $50,100; 10% of workers earn $31,500 or less; 10% of workers earn $74,860 or more.

**Career Opportunities**

Inside Wireman; Outside Lineman; Residential Wireman; Installer Technician; Electrician; Electrical Maintenance Worker; Construction Electrician; Appliance Installer; Sign Electrician; Motor Repair; Electrical and Electronics Installers and Repairers; Electronic Home Entertainment Equipment Installers and Repairers; Electrical Drafters; Construction and Building Inspectors; Elevator Installation and Maintenance; Electrical and Electronic Equipment Assemblers; Electrical Installers and Repairers; Electrical Inspectors.
## First Semester - 15 SCH
- PSYC 1300 - Learning Framework
- HRGY 1319 - Basic Horology I
- HRGY 1320 - Basic Horology II
- HRGY 1321 - Basic Horology III
- HRGY 1322 - Basic Horology IV

## Second Semester - 15 SCH
- COSC 1301 – Introduction to Computing
- HRGY 2301 - Intermediate Horology I
- HRGY 2302 - Intermediate Horology II
- HRGY 2303 - Intermediate Horology III
- HRGY 2304 - Intermediate Horology IV

## Third Semester - 15 SCH
- ENGL 1301 - Composition I
- HRGY 2305 - Intermediate Horology V
- HRGY 2306 - Intermediate Horology VI
- HRGY 2307 - Intermediate Horology VII
- HRGY 2308 - Intermediate Horology VIII

## Fourth Semester - 15 SCH
- MATH 1332 - Contemporary Mathematics
- ARTS 1301 - Art Appreciation
- HRGY 2341 - Advanced Horology Systems I
- HRGY 2342 - Advanced Horology Systems II
- HRGY 2343 - Advanced Horology Systems III

### Marketable Skills
- Clean, rinse, and dry timepiece parts
- Adjust timing regulators
- Customer and Personal Service
- Watch Repair
- Knowledge of industry tools and equipment
- Knowledge of industry organization and ethics

### Program Outcomes
- Demonstrate skills by performing disassembly, cleaning, oiling, repair and adjustment operations on multi function mechanical movements, automatics and calendar chronographs, quartz analog and digital time pieces.
- Demonstrate skills by making tools and watch parts including turning parts on a watchmakers lathe to 1/100 mm tolerance reflecting industry standards.

### High School Endorsements
- Business and Industry

### Additional Education Opportunities
- Graduates may pursue a BAAS degree. Brand specific training through major watch companies. Watchmaker training in Switzerland. Industry specific Aircraft instrumentation service training. Industry specific Aerospace instrumentation production and technical training.

### Expected Salary
- **Texas wage data:** workers on average earn $39,010; 10% of workers earn $33,490 or less; 10% of workers earn $60,330 or more.

### Career Opportunities
- Aerospace Instrument Technician; Watch Repair Shop Owner; Aircraft Instrument Technician.
Horology Technology
Certificate (45 SCH*)
*Semester Credit Hour

First Semester - 12 SCH
HRGY 1319 - Basic Horology I
HRGY 1320 - Basic Horology II
HRGY 1321 - Basic Horology III
HRGY 1322 - Basic Horology IV

Second Semester - 12 SCH
HRGY 2301 - Intermediate Horology I
HRGY 2302 - Intermediate Horology II
HRGY 2303 - Intermediate Horology III
HRGY 2304 - Intermediate Horology IV

Third Semester - 12 SCH
HRGY 2305 - Intermediate Horology V
HRGY 2306 - Intermediate Horology VI
HRGY 2307 - Intermediate Horology VII
HRGY 2308 - Intermediate Horology VIII

Fourth Semester - 9 SCH
HRGY 2341 - Advanced Horology Systems I
HRGY 2342 - Advanced Horology Systems II
HRGY 2343 - Advanced Horology Systems III

Marketable Skills
• Clean, rinse, and dry timepiece parts
• Adjust timing regulators
• Customer and Personal Service
• Watch Repair
• Knowledge of industry tools and equipment
• Knowledge of industry organization and ethics

Program Outcomes
• Demonstrate skills by performing disassembly, cleaning, oiling, repair and adjustment operations on multi function mechanical movements, automatics and calendar chronographs, quartz analog and digital time pieces.
• Demonstrate skills by making tools and watch parts including turning parts on a watchmakers lathe to 1/100 mm tolerance reflecting industry standards.

High School Endorsements
Business and Industry

Additional Education Opportunities
Graduates may pursue a BAAS degree. Brand specific training through major watch companies. Watchmaker training in Switzerland. Industry specific Aircraft instrumentation service training. Industry specific Aerospace instrumentation production and technical training.

Expected Salary
Texas wage data: workers on average earn $39,010; 10% of workers earn $33,490 or less; 10% of workers earn $60,330 or more.

Career Opportunities
Watchmaker; Watch and Clock Sales; Aerospace Instrument Technician; Watch Repair Shop Owner; Aircraft Instrument Technician.
## Fine Mechanical Watch Repair

### First Semester - 12 SCH
- HRGY 1319 - Basic Horology I
- HRGY 1320 - Basic Horology II
- HRGY 1321 - Basic Horology III
- HRGY 1322 - Basic Horology IV

### Second Semester - 12 SCH
- HRGY 2301 - Intermediate Horology I
- HRGY 2302 - Intermediate Horology II
- HRGY 2303 - Intermediate Horology III
- HRGY 2304 - Intermediate Horology IV

### Third Semester - 12 SCH
- HRGY 2305 - Intermediate Horology V
- HRGY 2306 - Intermediate Horology VI
- HRGY 2307 - Intermediate Horology VII
- HRGY 2308 - Intermediate Horology VIII

### Marketable Skills
- Clean, rinse, and dry timepiece parts
- Adjust timing regulators
- Customer and Personal Service
- Watch Repair
- Knowledge of industry tools and equipment
- Knowledge of industry organization and ethics

### Program Outcomes
- Demonstrate skills by performing disassembly, cleaning, oiling, repair and adjustment operations on multi function mechanical movements, automatics and calendar chronographs, quartz analog and digital time pieces.
- Demonstrate skills by making tools and watch parts including turning parts on a watchmakers lathe to 1/100 mm tolerance reflecting industry standards.

### High School Endorsements
- Business and Industry

### Additional Education Opportunities
- Graduates may pursue a BAAS degree. Brand specific training through major watch companies. Watchmaker training in Switzerland. Industry specific Aircraft instrumentation service training. Industry specific Aerospace instrumentation production and technical training.

### Expected Salary
**Texas wage data**: workers on average earn $39,010; 10% of workers earn $33,490 or less; 10% of workers earn $60,330 or more.

### Career Opportunities
- Watchmaker; Watch and Clock Sales; Aerospace Instrument Technician; Watch Repair Shop Owner; Aircraft Instrument Technician.
### Jewelry Technology

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<thead>
<tr>
<th>First Semester - 15 SCH</th>
<th>Second Semester - 15 SCH</th>
</tr>
</thead>
</table>
| PSYC 1300 - Learning Framework  
JLRY 1301 - Jewelry Techniques I  
JLRY 1302 - Jewelry Techniques II  
JLRY 1303 - Jewelry Techniques III  
JLRY 1304 - Jewelry Techniques IV | COSC 1301 – Introduction to Computing  
ARTS 1301 - Art Appreciation  
JLRY 1309 - Casting I  
JLRY 1348 - Jewelry Repair/Fabrication I  
JLRY 1349 - Jewelry Repair/Fabrication II |

<table>
<thead>
<tr>
<th>Third Semester - 15 SCH</th>
<th>Fourth Semester - 15 SCH</th>
</tr>
</thead>
</table>
| ENGL 1301 - Composition I  
JLRY 1341 - Stone Setting I  
JLRY 1342 - Stone Setting II  
JLRY 1343 - Stone Setting III  
JLRY 1344 - Stone Setting IV | MATH 1332 - Contemporary Mathematics  
JLRY 2335 - Precious Metals I  
JLRY 2336 - Precious Metals II  
JLRY 2337 - Precious Metals III  
JLRY 2338 - Precious Metals IV |

### Marketable Skills
- Create jewelry from gold, silver, platinum
- Smooth soldered joints and rough spots
- Customer and Personal Service
- Jewelry Repair and Fabrication
- Casting
- Stone Setting
- Knowledge of industry tools and equipment

### Program Outcomes
- Demonstrates skills in metal fabrication techniques: layout, sawing, filing, drilling, finishing, polishing, soldering, shaping, forming, doming, wire rolling and drawing.
- Demonstrates skills in casting techniques: wax carving, injecting, spruing, treeing, investing, and casting centrifugally and by vacuum.
- Demonstrates skills in jewelry repair: sizing, chain repair, tipping, beading, pronging, and plating.
- Demonstrates skills in setting such as: single and multiple round and fancy-cut stones into various mountings styles.
- Demonstrates knowledge of industry practices and ethics.

### High School Endorsements
Business and Industry

### Expected Salary
**Texas wage data:** workers on average earn $38,590; 10% of workers earn $23,820 or less; 10% of workers earn $57,500 or more.

### Additional Education Opportunities
Students pursuing an AAS in Jewelry Technology might also want to pursue a BAAS degree or Certifications in Gemology or CAD/CAM.

### Career Opportunities
Retail Jewelry Sales Professional; Jewelry Store Manager; Bench/Manufacturing Jeweler; Jewelry Designer; Jewelry Lab Grader/Quality Assurance Technician.
Jewelry Technology

First Semester - 12 SCH
- JLRY 1301 - Jewelry Techniques I
- JLRY 1302 - Jewelry Techniques II
- JLRY 1303 - Jewelry Techniques III
- JLRY 1304 - Jewelry Techniques IV

Second Semester - 12 SCH
- JLRY 1309 - Casting I
- JLRY 1348 - Jewelry Repair/Fabrication I
- JLRY 1349 - Jewelry Repair/Fabrication II
- JLRY 2333 - Casting II

Third Semester - 12 SCH
- JLRY 1341 - Stone Setting I
- JLRY 1342 - Stone Setting II
- JLRY 1343 - Stone Setting III
- JLRY 1344 - Stone Setting IV

Fourth Semester - 12 SCH
- JLRY 2335 - Precious Metals I
- JLRY 2336 - Precious Metals II
- JLRY 2337 - Precious Metals III
- JLRY 2338 - Precious Metals IV

Certificate (48 SCH*)
*Semester Credit Hour

Program Outcomes
- Demonstrates skills in metal fabrication techniques: layout, sawing, filing, drilling, finishing, polishing, soldering, shaping, forming, doming, wire rolling and drawing.
- Demonstrates skills in casting techniques: wax carving, injecting, spruing, treeing, investing, and casting centrifugally and by vacuum.
- Demonstrates skills in jewelry repair: sizing, chain repair, tipping, beading, pronging, and plating.
- Demonstrates skills in setting such as: single and multiple round and fancy-cut stones into various mountings styles.
- Demonstrates knowledge of industry practices and ethics.

Marketable Skills
- Create jewelry from gold, silver, platinum
- Smooth soldered joints and rough spots
- Customer and Personal Service
- Jewelry Repair and Fabrication
- Casting
- Stone Setting
- Knowledge of industry tools and equipment

High School Endorsements
Business and Industry

Expected Salary
Texas wage data: workers on average earn $38,590; 10% of workers earn $23,820 or less; 10% of workers earn $57,500 or more.

Career Opportunities
Retail Jewelry Sales Professional; Jewelry Store Manager; Bench/Manufacturing Jeweler; Jewelry Designer; Jewelry Lab Grader/Quality Assurance Technician.

Additional Education Opportunities
Students may pursue an AAS in Jewelry Technology, and might also want to pursue Certifications in Gemology or CAD/CAM.
### Jewelry Computer Aided Design Certificate (18 SCH*)

*Semester Credit Hour 5/2024

<table>
<thead>
<tr>
<th>First Semester - 6 SCH</th>
<th>Second Semester - 12 SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>JLRY 1309 - Casting I</td>
<td>HRGY 1371 - Introduction to Computer Aided Jewelry Design</td>
</tr>
<tr>
<td>JLRY 2333 - Casting II</td>
<td>HRGY 1372 - Technical Illustration for Jewelry Design</td>
</tr>
<tr>
<td></td>
<td>HRGY 1373 - Basic Computer Aided Drafting for Jewelry Design</td>
</tr>
<tr>
<td></td>
<td>HRGY 1374 - Solid Modeling Design for Jewelry</td>
</tr>
</tbody>
</table>

### Marketable Skills

- Computer aided design CAD software
- Data base user interface and query software
- Analyzing information and evaluating results
- Handling and Moving Objects

### Program Outcomes

- Demonstrates skills in creating a working foundation in interpreting and creating computer generated designs including skills that apply techniques used in the industry.
- Demonstrates skills in use of the scientific empirical approach used in related earth sciences by practical demonstration of optical and comparative relative density testing and interpretation.
- Demonstrates skills and knowledge of collaborative techniques in managing a complex computer system to demonstrate repeatable measurable outcomes.
- Demonstrates skills in collaborating ideas to create a workable design that incorporates professional stone setting, casting and bench skills used in the industry.

### High School Endorsements

Business and Industry

### Expected Salary

**Texas wage data:** workers on average earn $38,590; 10% of workers earn $23,820 or less; 10% of workers earn $57,500 or more.

### Additional Education Opportunities

Students pursuing a certificate in CAD/CAM may also complete an AAS degree in Jewelry Technology, Horology or other certifications in jewelry, Horology, or Gemology. Opportunities also include training in the Arts or Sciences as undergraduates or graduate levels.

### Career Opportunities

- Retail Jewelry Sales Professional
- Jewelry Designer
- Jewelry Store Manager
- Jewelry Lab Grader/Quality Assurance Technician
- Bench/Manufacturing Jeweler
- Computer Aided Design in Other Industry
## Jewelry Fabrication and Repair Technician

**Certificate (18 SCH*)**  
*Semester Credit Hour  
5/2024

<table>
<thead>
<tr>
<th>First Semester - 12 SCH</th>
<th>Second Semester - 6 SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>JLRY 1301 - Jewelry Techniques I</td>
<td>JLRY 1348 - Jewelry Repair/Fabrication I</td>
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<tr>
<td>JLRY 1302 - Jewelry Techniques II</td>
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<tr>
<td>JLRY 1303 - Jewelry Techniques III</td>
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<tr>
<td>JLRY 1304 - Jewelry Techniques IV</td>
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</tr>
</tbody>
</table>

### Marketable Skills
- Create jewelry from gold, silver, platinum
- Smooth soldered joints and rough spots
- Customer and Personal Service
- Jewelry Repair and Fabrication
- Casting
- Stone Setting
- Knowledge of industry tools and equipment

### Program Outcomes
- Demonstrates skills in metal fabrication techniques: layout, sawing, filing, drilling, finishing, polishing, soldering, shaping, forming, doming, wire rolling and drawing.
- Demonstrates skills in casting techniques: wax carving, injecting, spruing, treeing, investing, and casting centrifugally and by vacuum.
- Demonstrates skills in jewelry repair: sizing, chain repair, tipping, beading, pronging, and plating.
- Demonstrates skills in setting such as: single and multiple round and fancy-cut stones into various mountings styles.
- Demonstrates knowledge of industry practices and ethics.

### High School Endorsements
- Business and Industry

### Expected Salary
- **Texas wage data:** workers on average earn $38,590; 10% of workers earn $23,820 or less; 10% of workers earn $57,500 or more.

### Additional Education Opportunities
- Students may pursue an AAS in Jewelry Technology, and might also want to pursue Certifications in Gemology or CAD/CAM.

### Career Opportunities
- Retail Jewelry Sales Professional; Jewelry Store Manager; Bench/Manufacturing Jeweler; Jewelry Designer; Jewelry Lab Grader/Quality Assurance Technician.
First Semester - 16 SCH

JLRY 1413 - Fundamentals of Gemology I
(Diamonds)
JLRY 1414 - Fundamentals of Gemology II
(Colored Stones)
JLRY 1450 - Intermediate Gemology
JLRY 2431 - Advanced Gemological Practice

Program Outcomes

- Demonstrates skills in classifying gemstones to identify unknowns using standardized gemologically recognized techniques used in the industry.
- Demonstrates skills in use of the scientific empirical approach used in related earth sciences by practical demonstration of optical and comparative relative density testing and interpretation.
- Demonstrates skills and knowledge of collaborative techniques in managing complex scientific systems to demonstrate repeatable measurable outcomes.
- Demonstrates skills in collection of data to organize a database to communicate and compare with others gemstone professionals to confirm identities of unknown gemstones.

Marketable Skills

- Assign polish, symmetry, and clarity grades to stones, according to established grading systems
- Estimate wholesale and retail value of gems
- Examine gem surfaces and internal structures
- Identify and document stones’ clarity characteristics

High School Endorsements

Business and Industry

Expected Salary

Texas wage data: workers on average earn $38,590; 10% of workers earn $23,820 or less; 10% of workers earn $57,500 or more.

Career Opportunities

Retail Jewelry Sales Professional; Jewelry Store Manager; Jewelry Lab Grader/Quality Assurance Technician; Jewelry Appraisal Professional; Gemological Research Technician.

Additional Education Opportunities

Students pursuing a certificate in Gemology may also complete an AAS degree in Jewelry Technology, Horology or other certifications in Jewelry, Horology, or Jewelry Design CAD. Opportunities also include training in the Arts or Sciences as undergraduates or graduate levels. Opportunities are available for training in Jewelry Appraisal Practices through ISA, ASA, or the MasterValuer Program.
# Mechatronics

<table>
<thead>
<tr>
<th>First Semester - 15 SCH</th>
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<td>ENTC 1349 - Reliability and Maintainability</td>
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<tr>
<td>ELMT 2333 - Industrial Electronics</td>
<td>HYDR 1345 - Hydraulics and Pneumatics</td>
</tr>
<tr>
<td>ELPT 1221 - Introduction to Electrical Safety and Tools</td>
<td>INTC 1341 - Principles of Automatic Control</td>
</tr>
<tr>
<td>MATH 1332 - Contemporary Math</td>
<td>RBTC 1301 - Programmable Logic Controllers</td>
</tr>
<tr>
<td>PSYC 1300 - Learning Framework</td>
<td>RBTC 1351 - Robotic Mechanisms</td>
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<tr>
<th>Third Semester - 15 SCH</th>
<th>Fourth Semester - 15 SCH</th>
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<tbody>
<tr>
<td>COSC 1301 - Introduction to Computing</td>
<td>ELPT 2355 - Programmable Logic Controllers II</td>
</tr>
<tr>
<td>ELMT 2337 - Electronic Troubleshooting, Service and Repair</td>
<td>ENGL 1301 - Composition I</td>
</tr>
<tr>
<td>ELPT 1351 - Electrical Machines</td>
<td>CETT 1349 - Digital Systems</td>
</tr>
<tr>
<td>ELPT 2319 - Programmable Logic Controllers I</td>
<td>INMT 2345 - Industrial Troubleshooting</td>
</tr>
<tr>
<td>RBTC 1305 - Robotic Fundamentals</td>
<td>DRAM 1301 - Theater Appreciation</td>
</tr>
</tbody>
</table>

## Marketable Skills
- Acquire and evaluate information
- Interpret and communicate information
- Use computer software to maintain production
- Problem-solving
- OSHA - General Industries
- Maintain digital and solid state devices
- Repair and maintain fluid and pneumatic systems
- Monitor mechanical and electronic devices, circuits, and systems used in automated manufacturing
- Electronic system maintenance, troubleshooting and repair
- Use programmable logic controllers
- Installation, maintenance and repair of automatic control systems
- Install, maintain and repair robotic mechanisms
- Installation, maintenance and repair of four bar linkages, cams, gears and gear trains.

## Program Outcomes
Maintain equipment in an industrial setting including the use of Programmable Logic Controllers, Variable Frequency Drives, hydraulic and pneumatic systems, communications between systems and mechanical systems.

## Additional Education Opportunities
Bachelor of Arts in Applied Science

## Expected Salary
**Texas wage data:** workers on average earn $117,650; 10% of workers earn $64,300 or less; 10% of workers earn $178,120 or more.

## Career Opportunities
Electronics Technician; Electromechanical Technician; Maintenance Technician-Electrical and Mechanical; Industrial Electrician; Industrial Mechanic; Robotics Technician; Wind Turbine Technician; Field Service Technician; Manufacturing Systems Technician; Automation Technician; Power Plant Technician; Fluid Power Technician; Equipment Technician; Power Tool Repair Technician; Plant Engineering Systems Technician; Engineering Technician.
### Mechatronics Certificate (30 SCH*)

*Semester Credit Hour

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<td>ELPT 1351 - Electrical Machines</td>
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### Marketable Skills

Math Skills; manage time and materials; acquire and evaluate information; interpret and communicate information; oral and written communications skills; computer skills; teamwork; cultural diversity; apply technology to work; creative thinking; decision making; problem solving; self-management; OSHA-General Industries; digital electronics; solid state devices; solid state circuits; microprocessors; linear integrated circuits; DC-AC circuits; fluid power; mechatronics tools and instruments; electronics devices, circuits, and systems used in automated manufacturing or process control; Electronic system maintenance, troubleshooting and repair; programmable logic controllers; mechanical, hydraulic, and pneumatic troubleshooting; installation, maintenance and repair of automatic control systems; installation, maintenance and repair of robotic mechanisms; installation, maintenance and repair of four bar linkages, cams, gears and gear trains.

### Program Outcomes

Maintain equipment in an industrial setting including the use of Programmable Logic Controllers, Variable Frequency Drives, hydraulic and pneumatic systems, communications between systems and mechanical systems.

### Additional Education Opportunities

Associate of Applied Science, Bachelor of Arts in Applied Science

### High School Endorsements

Business and Industry

### Expected Salary

**Texas wage data:** workers on average earn $117,650; 10% of workers earn $64,300 or less; 10% of workers earn $178,120 or more.

### Career Opportunities

Electronics Technician; Electromechanical Technician; Maintenance Technician-Electrical and Mechanical; Industrial Electrician; Industrial Mechanic; Robotics Technician; Wind Turbine Technician; Field Service Technician; Manufacturing Systems Technician; Automation Technician; Process Technician; Power Plant Technician; Fluid Power Technician; Equipment Technician; Power Tool Repair Technician; Plant Engineering Systems Technician; Engineering Technician.
## Industrial Maintenance Technician

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### Marketable Skills

- Math Skills; manage time and materials; acquire and evaluate information; interpret and communicate information; oral and written communications skills; computer skills; team-work; cultural diversity; apply technology to work; creative thinking; decision making; problem solving; self-management; OSHA-General Industries; digital electronics; solid state devices; solid state circuits; microprocessors; linear integrated circuits; DC-AC circuits; fluid power; mechatronics tools and instruments; electronics devices, circuits, and systems used in automated manufacturing or process control; Electronic system maintenance, troubleshooting and repair; programmable logic controllers; mechanical, hydraulic, and pneumatic trouble-shooting; installation, maintenance and repair of automatic control systems; installation, maintenance and repair of robotic mechanisms; installation, maintenance and repair of four bar linkages, cams, gears and gear trains.

### Program Outcomes

Maintain equipment in an industrial setting including the use of Programmable Logic Controllers, Variable Frequency Drives, hydraulic and pneumatic systems, communications between systems and mechanical systems.

### High School Endorsements

Business and Industry

### Expected Salary

**Texas wage data:** workers on average earn $117,650; 10% of workers earn $64,300 or less; 10% of workers earn $178,120 or more.

### Career Opportunities

- Electronics Technician
- Electromechanical Technician
- Maintenance Technician-Electrical and Mechanical
- Industrial Electrician
- Industrial Mechanic
- Robotics Technician
- Wind Turbine Technician
- Field Service Technician
- Manufacturing Systems Technician
- Automation Technician
- Power Plant Technician
- Fluid Power Technician
- Equipment Technician
- Power Tool Repair Technician
- Plant Engineering Systems Technician
- Engineering Technician

### Additional Education Opportunities

Associate of Applied Science in Mechatronics, Bachelor of Arts in Applied Science
Industrial Production Operator

Certificate (18 SCH*)

First Semester - 9 SCH
CETT 1409 - DC-AC Circuits
ELMT 2333 - Industrial Electronics
ELPT 1221 - Introduction to Electrical Safety and Tools

Second Semester - 9 SCH
ENTC 1349 - Reliability and Maintainability
RBTC 1351 - Robotic Mechanisms
HYDR 1345 - Hydraulics and Pneumatics

Marketable Skills
Acquire and evaluate information; interpret and communicate information; team-work; apply technology to work; creative thinking; decision making; problem solving; OSHA-General Industries; DC-AC circuits; fluid power; mechatronics tools and instruments; electronics devices, circuits, and systems used in automated manufacturing; electronic system maintenance, troubleshooting and repair; mechanical, hydraulic, and pneumatic trouble-shooting; installation, maintenance and repair of four bar linkages, cams, gears and gear trains.

Program Outcomes
Maintain equipment in an industrial setting including the use of electrical devices, hydraulic and pneumatic systems, and mechanical systems.

High School Endorsements
Business and Industry

Additional Education Opportunities
Level 1 or 2 Mechatronics Certificate, Associate of Applied Science in Mechatronics, Bachelor of Arts in Applied Science

Expected Salary
Texas wage data: workers on average earn $117,650; 10% of workers earn $64,300 or less; 10% of workers earn $178,120 or more.

Career Opportunities
Electromechanical Technician; Maintenance Technician-Electrical and Mechanical; Industrial Electrician; Industrial Mechanic; Field Service Technician; Manufacturing Systems Technician; Fluid Power Technician; Equipment Technician; Power Tool Repair Technician.
# Networking

## First Semester - 15 SCH
- ITNW 1325 - Fundamentals of Networking Technologies
- ITSC 1305 - Introduction to PC Operating Systems
- ITSC 1325 - Personal Computer Hardware
- ARTS 1301 - Art Appreciation
- PSYC 1300 - Learning Framework

## Second Semester - 15 SCH
- IMED 1316 - Web Design I
- ITNW 1351 - Fundamentals of Wireless LANs
- ITSC 1321 - Intermediate PC Operating Systems
- COSC 1301 – Introduction to Computing
- MATH 1332 - Contemporary Mathematics

## Third Semester - 15 SCH
- ITNW 1354 - Implementing and Supporting Servers
- ITNW 2313 - Networking Hardware
- ITSW 1304 - Introduction to Spreadsheets
- ITSC 2339 - Personal Computer Help Desk Support
- ENGL 1301 - Composition I

## Fourth Semester - 15 SCH
- ITSW 1307 - Introduction to Database
- ITNW 2305 - Network Administration
- ITSY 1342 - Information Technology Security
- ITSW 2334 - Advanced Spreadsheets
- POFT 1313 - Professional Workforce Preparation*

* ITSC 2386: Internship - Computer and Information Sciences, General may be substituted with approval.

## Marketable Skills
- Analyzing Data or Information
- Making Decisions and Solving Problems
- Evaluating results to choose the best solution
- Updating and Using Relevant Knowledge
- Identifying Objects, Actions, and Events
- Developing computer security policies or procedures
- Recommend changes to improve computer systems
- Maintain contingency plans for disaster recovery
- Monitor the performance of computer networks

## Program Outcomes
- Demonstrate techniques to design a secure network
- Ability to evaluate resources and make relevant recommendation for purchase or upgrade of a system
- Recognize the interaction of stand-alone and network devices, operating systems, and applications.
- Identify tools, diagnostic procedures and troubleshooting techniques for networks and personal computer components.

## High School Endorsements
- Business and Industry

## Additional Education Opportunities
- Students may continue their education through a Bachelor of Arts in Applied Science degree.

## Expected Salary
- **Texas wage data:** workers on average earn $120,000; 10% of workers earn $68,640 or less; 10% of workers earn $170,170 or more.

## Career Opportunities
- Network Administrator; Personal Computer Technician; Help Desk/Technical Support Specialist; Information Security Specialist; Network Technician; Computer Support Specialist; Information Technology Support Specialists; Network Infrastructure Support.
## Marketable Skills

- Locate and correct data entry errors, or report them to supervisors.
- Compile, sort, and verify the accuracy of data before it is entered.
- Compare data with source documents, or re-enter data in verification format to detect errors.
- Store completed documents in appropriate locations.
- Select materials needed to complete work assignments.

## Program Outcomes

- Utilize industry standard application software to produce personal, business, and academic reports and presentations.
- Demonstrate knowledge of computer industry terminology and jargon.

## High School Endorsements

Business and Industry

## Expected Salary

**Texas wage data:** workers on average earn $33,250; 10% of workers earn $21,840 or less; 10% of workers earn $44,760 or more.

## Additional Educational Opportunities

Students may continue their education through a BAAS degree.

## Career Opportunities

Data Processing Analysts; Office Manager; Desktop Support Technician; Office Assistant; Database Administrator; Administrative Assistant.
Microsoft Office Specialist

Certificate (16 SCH*)
*Semester Credit Hour

First Semester - 10 SCH
- ITSW 1304 - Introduction to Spreadsheets
- ITSW 1401 - Introduction to Word Processing
- ITSW 2334 - Advanced Spreadsheets

Second Semester - 6 SCH
- ITSW 1307 - Introduction to Database
- ITSW 1310 - Introduction to Presentation Graphics

 Marketable Skills
- Create, maintain, and enter information into databases.
- Use computers for various applications, such as word processing.
- Employability readiness skillset.
- Proficiency in the functionalities of Microsoft Office software.

Program Outcomes
- Utilize industry standard application software to produce personal, business, and academic reports and presentations.
- Demonstrate knowledge of computer industry terminology and jargon.

High School Endorsements
- Business and Industry

Expected Salary
- Texas wage data: workers on average earn $41,464; 10% of workers earn $29,800 or less; 10% of workers earn $85,978 or more.

Additional Educational Opportunities
- Students may continue their education through a Certificate in Business Management, an AAS in Business Management, and a BAAS degree.

Career Opportunities
- Microsoft Office Specialist, Excel Specialist, Office Software Specialist, Word Processing Specialist, MS PowerPoint Specialist.
# Computer Support Tech-A+ Certificate (30 SCH*)

*Semester Credit Hour

<table>
<thead>
<tr>
<th>First Semester - 15 SCH</th>
<th>Second Semester - 15 SCH</th>
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<tbody>
<tr>
<td>ITSC 1305 - Introduction to PC Operating Systems</td>
<td>ITNW 1351 - Fundamentals of Wireless LANs</td>
</tr>
<tr>
<td>ITSC 1325 - Personal Computer Hardware</td>
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</tr>
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<td>ITNW 1325 - Fundamentals of Networking Technologies</td>
<td>ITNW 2305 - Network Administration</td>
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</tr>
<tr>
<td>ITSC 2339 - Personal Computer Help Desk Support</td>
<td>ITSY 1342 - Information Technology Security</td>
</tr>
</tbody>
</table>

*ITSC 2386 Internship - Computer & Informational Sciences, General may be substituted with approval.

## Marketable Skills

- Computer Skills
- Problem Solving
- Critical Thinking
- Technical Proficiency

## Program Outcomes

- Ability to evaluate resources and make relevant recommendation for purchase or upgrade of a system
- Identify tools, diagnostic procedures and troubleshooting techniques for networks and personal computer components.

## High School Endorsements

- Business and Industry

## Additional Education Opportunities

Students may continue their education through an AAS degree.

## Expected Salary

**Texas wage data:** workers on average earn $47,460; 10% of workers earn $29,020 or less; 10% of workers earn $77,490 or more.

## Career Opportunities

Help Desk/Technical Support Specialist; Personal Computer Technician; Information Technology Support Specialist; Computer Support Specialist.
First Semester - 12 SCH
- ITNW 1325 - Fundamentals of Networking Technologies
- ITSC 1305 - Introduction to PC Operating Systems
- ITSC 1325 - Personal Computer Hardware
- ITSW 1304 - Introduction to Spreadsheets

Second Semester - 18 SCH
- IMED 1316 - Web Design I
- ITNW 1351 - Fundamentals of Wireless LANs
- ITNW 2305 - Network Administration
- ITNW 1321 - Intermediate PC Operating Systems
- ITSY 1342 - Information Technology Security
- ITSW 2334 - Advanced Spreadsheets

Third Semester - 12 SCH
- ITNW 1354 - Implementing and Supporting Servers
- ITNW 2313 - Networking Hardware
- POFT 1313 - Professional Workforce Preparation*
- ITSC 2339 - Personal Computer Help Desk Support

*ITSC 2386 Internship - Computer & Informational Sciences, General may be substituted with approval.

**Marketable Skills**
- Provide Technical Support
- Monitor Computer System Performance
- Problem Solving
- Gather Technical Information
- Resolve Computer Software Problems

**Program Outcomes**
- Demonstrate techniques to design a secure network.
- Ability to evaluate resources and make relevant recommendation for purchase or upgrade of a system.
- Recognize the interaction of stand-alone and network devices, operating systems, and applications.
- Identify tools, diagnostic procedure and troubleshooting techniques for networks and personal computer components.

**High School Endorsements**
- Business and Industry

**Expected Salary**
- Texas wage data: workers on average earn $70,950; 10% of workers earn $42,080 or less; 10% of workers earn $123,910 or more.

**Additional Education Opportunities**
- Students may continue their education through an AAS degree.

**Career Opportunities**
- Help Desk/Technical Support Specialist; Information Security Specialist; Network Technician; Information Technology Support Specialist; Computer Support Specialist; Network Infrastructure Support; Personal Computer Technician.
First Semester - 12 SCH

COSC 1301 - Introduction to Computing
ITCC 1314 - CCNA 1: Introduction to Networks
ITSC 1305 - Introduction to PC Operating Systems
ITSC 1325 - Personal Computer Hardware

Second Semester - 12 SCH

ITCC 1344 - CCNA 2: Switching, Routing, and Wireless Essentials
IMED 1316 - Web Design I
ITSC 1321 - Intermediate PC Operating Systems
ITNW 1351 - Fundamentals of Wireless LANs

Third Semester - 12 SCH

ITNW 2313 - Networking Hardware
ITSC 2339 - Personal Computer Help Desk Support
ITSW 1304 - Introduction to Spreadsheets
ITCC 2320 - CCNA 3: Enterprise Networking, Security, and Automation

Fourth Semester - 9 SCH

ITNW 2305 - Network Administration
ITSY 1342 - Information Technology Security
ITSW 2334 - Advanced Spreadsheets

 Marketable Skills

- Computer skills
- Analyze project data
- Modify software programs to improve performance
- Apply statistical approaches to solve problems
- Assess database performance
- Analyze user needs and software requirements
- Confer on project status, proposals, or technical issues
- Plan installation or modification of systems

Program Outcomes

- Demonstrate techniques to design a secure network
- Ability to evaluate resources and make relevant recommendation for purchase or upgrade of a system.
- Recognize the interaction of stand-alone and network devices, operating systems, and applications.
- Identify tools, diagnostic procedure and troubleshooting techniques for networks and personal computer components.

High School Endorsements

Business and Industry

Expected Salary

Texas wage data: workers on average earn $108,150; 10% of workers earn $67,640 or less; 10% of workers earn $123,910 or more.

Additional Education Opportunities

Students may continue their education through an AAS degree.

Career Opportunities

Help Desk/Technical Support Specialist; Personal Computer Technician; Network Administrator; Information Security Specialist; Network Technician; Network Infrastructure Support; Information Technology Support Specialist.
Cybersecurity

First Semester - 15 SCH
COSC 1301 - Introduction to Computing
ITCC 1314 - CCNA 1: Introduction to Networks
ITSC 1305 - Introduction to PC Operating Systems
ITSY 1300 - Fundamentals of Information Security
ENGL 1301 - Composition I

Second Semester - 15 SCH
ITCC 1344 - CCNA 2: Switching, Routing, and Wireless Essentials
ITSY 1342 - Information Technology Security
ITNW 1354 - Implementing and Supporting Servers
ITNW 2305 - Network Administration
MATH 1332 - Contemporary Mathematics

Third Semester - 15 SCH
ITCC 2320 - CCNA 3: Enterprise Networking, Security, and Automation
ITSY 2300 - Operating System Security
ITSY 2301 - Firewalls and Network Security
ITSC 1325 - Personal Computer Hardware
ARTS 1301 - Art Appreciation

Fourth Semester - 15 SCH
ITSY 2343 - Computer System Forensics
ITSY 2342 - Incident Response & Handling
ITSY 2345 - Network Defense and Countermeasures
GAME 1301 - Computer Ethics
ECON 2302 - Principles of Microeconomics

 Marketable Skills
• Interacting with Computers
• Gathering Information
• Identifying Objects, Actions, and Events
• Ethics
• Evaluating Information
• Analyzing Data or Information
• Identifying underlying principles, reasons, or facts
• Implement security measures
• Collaborate with others to resolve issues

 Program Outcomes
• Ability to conduct risk and vulnerability assessments of existing and proposed networked systems.
• Demonstrate an understanding of cyber defense and attack methods.
• Show how ethical issues impact decision making in the cybersecurity area.
• Demonstrate techniques to design a secure network.
• Troubleshoot an information security system.

 High School Endorsements
Business and Industry

 Expected Salary
Texas wage data: workers on average earn $110,680; 10% of workers earn $67,660 or less; 10% of workers earn $165,070 or more.

 Additional Education Opportunities
Students may continue their education through a Bachelor of Arts in Applied Science degree, in addition to various industry certifications.

 Career Opportunities
Information Security Analyst; Cybersecurity Engineer; Network Security Engineer; Vulnerability Analyst/Penetration Tester; Cybersecurity Consultant; Security Architect; Security Auditor; Security Specialist; Computer Forensics Analyst; Ethical Hacker
# Cybersecurity

**Certificate (48 SCH*)**

*Semester Credit Hour

5/2024

<table>
<thead>
<tr>
<th>First Semester - 12 SCH</th>
<th>Second Semester - 12 SCH</th>
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</thead>
<tbody>
<tr>
<td>COSC 1301 - Introduction to Computing</td>
<td>ITCC 1344 - CCNA 2: Switching, Routing, and Wireless Essentials</td>
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</table>

## Marketable Skills

- Interacting with Computers
- Gathering Information
- Identifying Objects, Actions, and Events
- Ethics
- Evaluating Information
- Analyzing Data or Information
- Identifying underlying principles, reasons, or facts
- Implement security measures
- Collaborate with others to resolve issues

## Program Outcomes

- Ability to conduct risk and vulnerability assessments of existing and proposed networked systems.
- Demonstrate an understanding of cyber defense and attack methods.
- Show how ethical issues impact decision making in the cybersecurity area.
- Demonstrate techniques to design a secure network.
- Troubleshoot an information security system.

## High School Endorsements

- Business and Industry

## Expected Salary

**Texas wage data:** workers on average earn $110,680; 10% of workers earn $67,660 or less; 10% of workers earn $165,070 or more.

## Additional Education Opportunities

Students may continue their education through a Bachelor of Arts in Applied Science degree, in addition to various industry certifications.

## Career Opportunities

Information Security Analyst; Cybersecurity Engineer; Network Security Engineer; Vulnerability Analyst/Penetration Tester; Cybersecurity Consultant; Security Architect; Security Auditor; Security Specialist; Computer Forensics Analyst; Ethical Hacker.
Welding Technology

First Semester - 16 SCH

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PSYC 1300</td>
<td>Learning Framework</td>
</tr>
<tr>
<td>WLDG 1323</td>
<td>Welding Safety, Tools, and Equipment</td>
</tr>
<tr>
<td>WLDG 1425</td>
<td>Introduction to Oxy-Fuel Welding and Cutting</td>
</tr>
<tr>
<td>WLDG 1307</td>
<td>Introduction to Welding Using Multiple Processes</td>
</tr>
<tr>
<td>WLDG 1313</td>
<td>Introduction to Blueprint Reading for Welders</td>
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Second Semester - 15 SCH

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>COSC 1301</td>
<td>Introduction to Computing</td>
</tr>
<tr>
<td>WLDG 1427</td>
<td>Welding Codes and Standards</td>
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<tr>
<td>WLDG 1457</td>
<td>Intermediate Shielded Metal Arc Welding (SMAW)</td>
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<tr>
<td>WLDG 1434</td>
<td>Introduction to Gas Tungsten Arc Welding (GTAW)</td>
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Third Semester - 14 SCH

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<tbody>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics</td>
</tr>
<tr>
<td>WLDG 1435</td>
<td>Introduction to Pipe Welding</td>
</tr>
<tr>
<td>WLDG 2413</td>
<td>Intermediate Welding Using Multiple Processes</td>
</tr>
<tr>
<td>WLDG 1317</td>
<td>Introduction to Layout and Fabrication</td>
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</table>

Fourth Semester - 15 SCH

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>DRAM 1310</td>
<td>Introduction to Theater</td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
</tr>
<tr>
<td>WLDG 2451</td>
<td>Advanced Gas Tungsten Arc Welding (GTAW)</td>
</tr>
<tr>
<td>WLDG 2553</td>
<td>Advanced Pipe Welding</td>
</tr>
</tbody>
</table>

Marketable Skills

- Math skills; time and materials management; ability to acquire and evaluate information; interpret and communicate information; oral and written communications skills; computer skills; teamwork; cultural diversity; apply technology to work; creative thinking; decision-making; problem-solving; self-management; construction and industrial safety; oxy-fuel welding and cutting; power sources; electrode selection; shielded metal arc welding; gas metal arc welding and cutting; gas tungsten arc welding; flux-cored arc welding; blueprint reading; measurement; welding codes and standards; layout and fabrication; fillet welds; V-groove welds; plate welding; pipe welding; and 1G, 2G, 5G, 6G positions.

Program Outcomes

- Students earning the Structural Steel Welding certificate will demonstrate proficiency by taking the American Welding Society Certification Test (3G) on plate using SMAW welding process.
- Students earning the Pipe welding certificate will demonstrate proficiency by taking the American Society of Mechanical Engineers section IX test (6G) on 5” pipe using SMAW welding process.
- Students earning the Advanced Welding Shop Technology certificate will demonstrate proficiency by taking the American Society of Mechanical Engineers section IX test (6G) on 2” pipe using the GTAW welding process.

High School Endorsements

- Business and Industry

Expected Salary

- Texas wage data: workers on average earn $36,210; 10% of workers earn $27,030 or less; 10% of workers earn $53,290 or more.

Career Opportunities

- Blueprint reading; layout, cutting and fitting parts; tack and production welding; finishing and material handling; welding fabricators; shop supervisors; estimators and shop owners; pipe welder; and structural steel welder.

Additional Education Opportunities

- Bachelor of Arts in Applied Science
First Semester - 17 SCH

- WLDG 1323 - Welding Safety, Tools, and Equipment
- WLDG 1425 - Introduction to Oxy-Fuel Welding and Cutting
- WLDG 1307 - Introduction to Welding Using Multiple Processes
- WLDG 1313 - Introduction to Blueprint Reading for Welders
- WLDG 1457 - Intermediate Shielded Metal Arc Welding

 Marketable Skills

Teamwork; cultural diversity; apply technology to work; construction and industrial safety; oxy-fuel welding and cutting; power sources; electrode selection; shielded metal arc welding; gas metal arc welding and cutting; gas tungsten arc welding; flux-cored arc welding; blueprint reading; measurement; layout and fabrication; fillet welds; V-groove welds; plate welding; pipe welding; and 1G, 2G, 3G positions.

Program Outcomes

- Students earning the Structural Steel Welding certificate will demonstrate proficiency by taking the American Welding Society Certification Test (3G) on plate using SMAW welding process.

High School Endorsements

Business and Industry

Expected Salary

**Texas wage data:** workers on average earn $36,210; 10% of workers earn $27,030 or less; 10% of workers earn $53,290 or more.

Career Opportunities

Blueprint reading; layout, cutting and fitting parts; tack and production welding; finishing and material handling; welding fabricators; shop supervisors; estimators and shop owners; and structural steel welder.

Additional Education Opportunities

Associate of Arts in Applied Science; Bachelor of Arts in Applied Science
• Students earning the Pipe welding certificate will demonstrate proficiency by taking the American Society of Mechanical Engineers section IX test (6G) on 5” pipe using SMAW welding process.

**Program Outcomes**

- Students earning the Pipe welding certificate will demonstrate proficiency by taking the American Society of Mechanical Engineers section IX test (6G) on 5” pipe using SMAW welding process.

**Additionl Education Opportunities**

Associate of Arts in Applied Science; Bachelor of Arts in Applied Science

**Career Opportunities**

Blueprint reading; layout, cutting and fitting parts; tack and production welding; finishing and material handling; welding fabricators; shop supervisors; estimators and shop owners; pipe welder; and structural steel welder.
First Semester - 18 SCH

WLDG 1323 - Welding Safety, Tools, and Equipment
WLDG 1425 - Introduction to Oxy-Fuel Welding and Cutting
WLDG 1430 - Introduction to Gas Metal Arc Welding (GMAW)
WLDG 1317 - Introduction to Layout and Fabrication
WLDG 2447 - Advanced Gas Metal Arc Welding (GMAW)

Marketable Skills

Teamwork; cultural diversity; apply technology to work; creative thinking; construction and industrial safety; oxy-fuel welding and cutting; power sources; gas metal arc welding and cutting; flux-cored arc welding; blueprint reading; measurement; layout and fabrication; fillet welds; V-groove welds; plate welding; and 1G, 2G, 3G positions.

Program Outcomes

• Students earning the Production Welding certificate will demonstrate proficiency by taking the American Welding Society Certification (2F) on plate using the GMAW welding process.

High School Endorsements

Business and Industry

Additional Education Opportunities

Associate of Arts in Applied Science; Bachelor of Arts in Applied Science

Expected Salary

Texas wage data: workers on average earn $36,210; 10% of workers earn $27,030 or less; 10% of workers earn $53,290 or more.

Career Opportunities

Blueprint reading; layout, cutting and fitting parts; tack and production welding; finishing and material handling; welding fabricators; shop supervisors; and estimators and shop owners.
First Semester - 16 SCH
EDUC/PSYC 1300 - Learning Framework
BIOL 2401 - Anatomy & Physiology I
ENGL 1301 - Composition I
COSC 1301 - Introduction to Computing
PSYC 2314 - Lifespan Growth and Development

Second Semester - 16 SCH
BIOL 2402 - Anatomy & Physiology II
MATH 1342 - Elementary Statistical Methods
ENGL 1302 - Composition II
HIST 1301 - United States History I
PSYC 2301 - General Psychology

Third Semester - 15 SCH
HIST 1302 - United States History II
BIOL 1322 - Nutrition & Diet Therapy
GOVT 2305 - Federal Government
MUSI 1306 - Music Appreciation
SOCI 1301 - Introduction to Sociology

Fourth Semester - 13 SCH
ENGL 2331 - World Literature
BIOL 2420 - Microbiology for Non-Science Majors
GOVT 2306 - Texas Government
SPCH 1315 - Public Speaking

Marketable Skills
- Knowledge of micro/macromolecules as they relate to health and proper diet.
- Follow laboratory procedures safely and effectively.
- Use scientific reasoning to identify strengths/weaknesses and develop alternative solutions.
- Use computers and software to process and present data.
- Effective development, interpretation, and expression of ideas through written, oral, and visual communication.
- Work collaboratively with others and be an active listener.
- Lead when appropriate during laboratory or group projects.
- Knowledge base in cell biology, microbiology as related to human disease, and anatomy and physiology.

Program Outcomes
- Demonstrate knowledge of basic terminology and understanding of major biological concepts.
- Students will demonstrate critical thinking skills that allow them to see the intellectual connections between different disciplines.
- Demonstrate knowledge of the ethical challenges encountered by practitioners of different disciplines.

High School Endorsements
Public Service

Expected Salary
Texas wage data: workers on average earn $32,840; 10% of workers earn $24,800 or less; 10% of workers earn $44,170 or more.
US wage data: workers on average earn $35,850; 10% of workers earn $26,930 or less; 10% of workers earn $50,580 or more.

Additional Educational Opportunities
Bachelor of Science in Allied Health related programs.

Career Opportunities
This is a pre-health degree for pursuit of certificate/licensure and/or an associate degree in allied health related careers. AS Minimum: LVN; RN; EMS; Medical Secretary; Health-Care/Lab Technician; Medical Biller/Coder; Surgical Technician; Radiology Technician; Diagnostic Medical Sonographer; Allied Health Care Administrative Assistant; Phlebotomy Technician. BS Minimum: Case Managers; Radiation Therapist; BSN; Dietician; Respiratory Therapists. MS Minimum: Nurse Practitioner; Physician Assistant; Nurse Anesthetist.
## Prerequisites - 18 SCH

- MATH 1314 - College Algebra
- BIOL 2401 - Anatomy & Physiology I
- BIOL 2402 - Anatomy & Physiology II
- PHYS 1405 - Elementary Physics I
- ENGL 1301 - Composition I

## First Semester - 12 SCH

- DMSO 1110 - Introduction to Sonography
- DMSO 1260 - Clinical - Diagnostic Medical Sonography/Sonographer & Ultrasound Technician
- DMSO 1302 - Basic Ultrasound Physics
- DMSO 1341 - Abdominopelvic Sonography
- PSYC 2314 - Lifespan Growth and Development

## Second Semester - 11 SCH

- DMSO 2305 - Sonography of Obstetrics/Gynecology
- DMSO 1261 - Clinical - Diagnostic Medical Sonography/Sonographer & Ultrasound Technician
- DMSO 2351 - Doppler Physics
- DMSO 2353 - Sonography of Superficial Structures

## Third Semester - 12 SCH

- DMSO 2362 - Clinical - Diagnostic Medical Sonography/Sonographer & Ultrasound Technician
- DMSO 1342 - Intermediate Ultrasound Physics
- DMSO 2342 - Sonography of High Risk Obstetrics
- DMSO 2341 - Sonography of Abdominopelvic Pathology

## Fourth Semester - 7 SCH

- DMSO 2366 - Clinical - Diagnostic Medical Sonography/Sonographer & Ultrasound Technician
- DMSO 2130 - Advanced Ultrasound and Review
- MUSI 1306 - Music Appreciation

### Marketable Skills

- Communication
- Critical Thinking
- Personal Responsibilities
- Teamwork
- Time Management
- Lifelong Learner
- Detail Oriented
- Interpersonal Skills
- Physical Stamina

### Program Outcomes

- Apply effective oral, visual, and written communication skills.
- Demonstrate knowledge and understanding of human sectional anatomy relative to normal and abnormal sonographic imaging.
- Apply ultrasound principles and instrumentation relative to imaging and image quality.
- Demonstrate appropriate ergonomic scanning applications.
- Demonstrate the ability to provide patient care while following ethical standards, HIPPA guidelines, and maintaining professionalism.
- Recognize and use resources to enhance self-development and professional growth.

### High School Endorsements

- Public Service

### Expected Salary

- **Texas wage data:** workers on average earn $77,318; 10% of workers earn $60,819 or less; 10% of workers earn $99,414 or more.

### Career Opportunities

- Hospitals; Physician Offices; Outpatient Care Centers; and Medical and Diagnostic Laboratories.

### Additional Educational Opportunities

- May pursue a Bachelor's Degree in ultrasound.

* Pending CAAHEP approval.
Prerequisites - 13 SCH
EMSP 1501 - Emergency Medical Technician
EMSP 1160 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
PSYC 1300 - Learning Framework
EMSP 1271 - EMS Documentation
EMSP 1208 - Emergency Vehicle Operations

First Semester - 13 SCH
EMSP 1355 - Trauma Management
EMSP 1161 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
EMSP 1356 - Patient Assessment and Airway Management
EMSP 1338 - Introduction to Advanced Practice
EMSP 2306 - Emergency Pharmacology

Second Semester - 12 SCH
EMSP 1162 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
EMSP 2434 - Medical Emergencies
EMSP 2444 - Cardiology
EMSP 2330 - Special Populations

Third Semester - 6 SCH
EMSP 2160 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
EMSP 2143 - Assessment Based Management
EMSP 2266 - Practicum (or Field Experience- Emergency Medical Technician / Technician (EMT Paramedic)
EMSP 2205 - EMS Operations

Fourth Semester - 16 SCH
PSYC 2314 - Lifespan Growth & Development
ENGL 1301 - Composition I
COSC 1301 - Introduction to Computing*
BIOL 2401 - Anatomy & Physiology I
MUSI 1306 - Music Appreciation

* Replace with SOCI 1301 for Nursing RN.

Marketable Skills
• Inform medical professionals regarding patient conditions/care
• Treat medical emergencies
• Analyze patient data to determine patient needs/treatment
• Collaborate with healthcare professionals to provide treatment
• Drive vehicles to transport individuals or equipment

Program Outcomes
• Examine and assess the complexity and condition level of the patient as well as the extent of injuries to determine the need for, and level of, advanced emergency medical care, and perform complex medical care based on the findings.
• Ability to conduct oneself in an ethical and professional manner demonstrating proficiency in interpersonal relations and communications.
• Demonstrate technical proficiency in all of the skills necessary to fulfill the role of an entry level Paramedic.

High School Endorsements
Public Service

Expected Salary
Texas wage data: workers on average earn $35,940; 10% of workers earn $21,730 or less; 10% of workers earn $55,260 or more.

Additional Educational Opportunities
Bachelor of Arts in Applied Science

Career Opportunities
Fire Department; Private and Municipal EMS Services; Hospital Emergency Departments; Industrial Safety; and Flight Services.
### Prerequisites - 13 SCH
- PSYC 1300 - Learning Framework
- EMSP 1501 - Emergency Medical Technician
- EMSP 1160 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
- EMSP 1271 - EMS Documentation
- EMSP 1208 - Emergency Vehicle Operations

### First Semester - 13 SCH
- EMSP 2306 - Emergency Pharmacology
- EMSP 1161 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
- EMSP 1356 - Patient Assessment and Airway Management
- EMSP 1338 - Introduction to Advanced Practice
- EMSP 1355 - Trauma Management

### Marketable Skills
- Inform medical professionals regarding patient conditions and care.
- Treat medical emergencies.
- Analyze patient data to determine patient needs or treatment goals.
- Collaborate with healthcare professionals to plan or provide treatment.
- Drive vehicles to transport individuals or equipment.

### Program Outcomes
- Demonstrate competency and the knowledge to recognize and care for a medical emergency.
- Demonstrate competency and the knowledge to recognize and care for a trauma emergency.
- Demonstrate competency in endotracheal intubation (ET).
- Demonstrate competency of intravenous catheterization (IV).
- Demonstrate competency of medication administration.

### High School Endorsements
- Public Service

### Expected Salary
**Texas wage data:** workers on average earn $35,940; 10% of workers earn $21,730 or less; 10% of workers earn $55,260 or more.

### Additional Educational Opportunities
Students may pursue a Certificate - EMT-Paramedic or an Associate of Applied Science.

### Career Opportunities
- Fire Department; Private and Municipal EMS Services; Hospital Emergency Departments; Industrial Safety; and Flight Services.
First Semester - 16 SCH

PSYC 1300 - Learning Framework  
EMSP 1501 - Emergency Medical Technician  
EMSP 1160 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)  
EMSP 2306 - Emergency Pharmacology  
EMSP 1271 - EMS Documentation  
EMSP 1208 - Emergency Vehicle Operations

Marketable Skills

- Inform medical professionals regarding patient conditions and care.  
- Treat medical emergencies.  
- Analyze patient data to determine patient needs or treatment goals.  
- Collaborate with healthcare professionals to plan or provide treatment.  
- Drive vehicles to transport individuals or equipment.

Program Outcomes

- Demonstrate competency and the knowledge to recognize and care for a medical emergency.  
- Demonstrate competency and the knowledge to recognize and care for a trauma emergency.  
- Demonstrate competency in endotracheal intubation (ET).  
- Demonstrate competency of intravenous catheterization (IV).  
- Demonstrate competency of medication administration.

High School Endorsements

Public Service

Additional Educational Opportunities

Students may pursue an Associate of Applied Science.

Expected Salary

Texas wage data: workers on average earn $35,940; 10% of workers earn $21,730 or less; 10% of workers earn $55,260 or more.

Career Opportunities

Fire Department; Private and Municipal EMS Services; Hospital Emergency Departments; Industrial Safety; and Flight Services.
Prerequisites - 13 SCH

EMSP 1501 - Emergency Medical Technician
EMSP 1160 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
EMSP 1271 - EMS Documentation
EMSP 1208 - Emergency Vehicle Operations
PSYC 1300 - Learning Framework

EMSP 1161 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
EMSP 1356 - Patient Assessment and Airway Management
EMSP 1338 - Introduction to Advanced Practice
EMSP 2306 - Emergency Pharmacology
EMSP 1355 - Trauma Management

Second Semester - 12 SCH

EMSP 1162 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
EMSP 2434 - Medical Emergencies
EMSP 2444 - Cardiology
EMSP 2330 - Special Populations

EMSP 2160 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
EMSP 2143 - Assessment Based Management
EMSP 2266 - Practicum - Emergency Medical Technician / Technician (EMT Paramedic)
EMSP 2205 - EMS Operations

First Semester - 13 SCH

EMSP 1161 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
EMSP 1356 - Patient Assessment and Airway Management
EMSP 1338 - Introduction to Advanced Practice
EMSP 2306 - Emergency Pharmacology
EMSP 1355 - Trauma Management

Second Semester - 12 SCH

EMSP 1162 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
EMSP 2434 - Medical Emergencies
EMSP 2444 - Cardiology
EMSP 2330 - Special Populations

EMSP 2160 - Clinical - Emergency Medical Technology / Technician (EMT Paramedic)
EMSP 2143 - Assessment Based Management
EMSP 2266 - Practicum - Emergency Medical Technician / Technician (EMT Paramedic)
EMSP 2205 - EMS Operations

Program Outcomes

- Examine and assess the complexity and condition level of the patient as well as the extent of injuries to determine the need for, and level of, advanced emergency medical care, and perform complex medical care based on the findings.
- Ability to conduct oneself in an ethical and professional manner demonstrating proficiency in interpersonal relations and communications.
- Demonstrate technical proficiency in all of the skills necessary to fulfill the role of an entry level Paramedic.

Marketable Skills

- Inform medical professionals regarding patient conditions/care
- Treat medical emergencies
- Analyze patient data to determine patient needs/treatment
- Collaborate with healthcare professionals to provide treatment
- Drive vehicles to transport individuals or equipment

High School Endorsements

Public Service

Expected Salary

Texas wage data: workers on average earn $35,940; 10% of workers earn $21,730 or less; 10% of workers earn $55,260 or more.

Career Opportunities

Fire Department; Private and Municipal EMS Services; Hospital Emergency Departments; Industrial Safety; and Flight Services.

Additional Educational Opportunities

Students may pursue an Associate of Applied Science.
### Enhanced Nurse Aide - Certificate I

#### First Semester - 16 SCH

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<tr>
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<tr>
<td>HITT 1305</td>
<td>Medical Terminology I</td>
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<tr>
<td>MDCA 1309</td>
<td>Anatomy &amp; Physiology for Medical Assistants</td>
</tr>
<tr>
<td>NURA 1301</td>
<td>Nurse Aide for Health Care</td>
</tr>
<tr>
<td>NURA 1260</td>
<td>Clinical - Nursing Assistant/Aide and Patient Care Assistant/Aide</td>
</tr>
<tr>
<td>GERS 1301</td>
<td>Introduction to Gerontology</td>
</tr>
<tr>
<td>HPRS 1202</td>
<td>Wellness and Health Promotion</td>
</tr>
</tbody>
</table>

#### Marketable Skills
- Assisting and Caring for Others
- Communication techniques
- Documenting/Recording Information

#### Program Outcomes
- Demonstrate the competencies to successfully complete the duties and requirements of a Certified Nurse Aide.
- Demonstrate the competencies to perform the duties of a phlebotomist.
- Demonstrate the competencies to successfully perform as an Emergency Care Attendant.
- Communicate the legal requirements of managing a long-term care facility.
- Communicate appropriate medical terminology in English and Spanish.

#### High School Endorsements
- Public Service

#### Expected Salary
**Texas wage data:** workers on average earn $28,240; 10% of workers earn $21,600 or less; 10% of workers earn $38,920 or more.

#### Additional Educational Opportunities
- Students may pursue a vocational nursing certificate.

#### Career Opportunities
- Hospitals; Clinics; Long-term care facilities; Home health agencies.
### First Semester - 16 SCH

- HITT 1305 - Medical Terminology I
- MDCA 1309 - Anatomy & Physiology for Medical Assistants
- NURA 1301 - Nurse Aide for Health Care
- NURA 1260 - Clinical - Nursing Assistant/Aide and Patient Care Assistant/Aide
- GERS 1301 - Introduction to Gerontology
- HPRS 1202 - Wellness and Health Promotion

### Second Semester - 9 SCH

- PLAB 1223 - Phlebotomy
- PLAB 1260 - Clinical - Phlebotomy/Phlebotomist
- HPRS 2300 - Pharmacology for Health Professions
- MDCA 1210 - Medical Assistant Interpersonal and Communication Skills

### Marketable Skills
- Assisting and Caring for Others
- Communication techniques
- Documenting/Recording Information

### Program Outcomes
- Demonstrate the competencies to successfully complete the duties and requirements of a Certified Nurse Aide.
- Demonstrate the competencies to perform the duties of a phlebotomist.
- Demonstrate the competencies to successfully perform as an Emergency Care Attendant.
- Communicate the legal requirements of managing a long-term care facility.
- Communicate appropriate medical terminology in English and Spanish.

### High School Endorsements
- Public Service

### Expected Salary
- Texas wage data: workers on average earn $28,240; 10% of workers earn $21,600 or less; 10% of workers earn $38,920 or more.

### Additional Educational Opportunities
- Students may pursue a vocational nursing certificate.

### Career Opportunities
- Hospitals; Clinics; Long-term care facilities; Home health agencies.
Enhanced Nurse Aide - Certificate III

First Semester - 16 SCH

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HITT 1305</td>
<td>Medical Terminology I</td>
</tr>
<tr>
<td>MDCA 1309</td>
<td>Anatomy &amp; Physiology for Medical Assistants</td>
</tr>
<tr>
<td>NURA 1301</td>
<td>Nurse Aide for Health Care</td>
</tr>
<tr>
<td>NURA 1260</td>
<td>Clinical - Nursing Assistant/Aide and Patient Care Assistant/Aide</td>
</tr>
<tr>
<td>GERS 1301</td>
<td>Introduction to Gerontology</td>
</tr>
<tr>
<td>HPRS 1202</td>
<td>Wellness and Health Promotion</td>
</tr>
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Second Semester - 14 SCH

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PLAB 1223</td>
<td>Phlebotomy</td>
</tr>
<tr>
<td>PLAB 1260</td>
<td>Clinical - Phlebotomy/Phlebotomist</td>
</tr>
<tr>
<td>HPRS 2300</td>
<td>Pharmacology for Health Professions</td>
</tr>
<tr>
<td>MDCA 1210</td>
<td>Medical Assistant Interpersonal and Communication Skills</td>
</tr>
<tr>
<td>NURA 1391</td>
<td>Special Topics in Nursing Assistant/Aide</td>
</tr>
<tr>
<td>NURA 1261</td>
<td>Clinical - Nursing Assistant/Aide and Patient Care Assistant/Aide</td>
</tr>
</tbody>
</table>

Marketable Skills

- Assisting and Caring for Others
- Communication techniques
- Documenting/Recording Information

Program Outcomes

- Demonstrate the competencies to successfully complete the duties and requirements of a Certified Nurse Aide.
- Demonstrate the competencies to perform the duties of a phlebotomist.
- Demonstrate the competencies to successfully perform as an Emergency Care Attendant.
- Communicate the legal requirements of managing a long-term care facility.
- Communicate appropriate medical terminology in English and Spanish.

High School Endorsements

- Public Service

Expected Salary

**Texas wage data:** workers on average earn $28,240; 10% of workers earn $21,600 or less; 10% of workers earn $38,920 or more.

Additional Educational Opportunities

Students may pursue a vocational nursing certificate.

Career Opportunities

- Hospitals
- Clinics
- Long-term care facilities
- Home health agencies
### LVN to ADN Program

**Prerequisites - 24 SCH**

- VNSG 2410 - Nursing in Health & Illness III
- BIOL 1322 - Nutrition & Diet Therapy
- BIOL 2401 - Anatomy & Physiology I
- BIOL 2402 - Anatomy & Physiology II
- PSYC 2301 - General Psychology
- PSYC 2314 - Lifespan Growth & Development
- ENGL 1301 - Composition I

**First Semester - 12 SCH* (Fall)**

- RNSG 1324 - Concept-Based Transition to Professional Nursing
- RNSG 1218 - Transition to Professional Nursing Competencies
- RNSG 1226 - Professional Nursing Concepts II
- RNSG 2160 - Clinical - Registered Nursing/Registered Nurse
- BIOL 2420 - Microbiology for Non-Science Majors

* Upon successful completion of the first semester RNSG courses, four credit hours will be awarded for previous LVN experience.

**Second Semester - 13 SCH (Spring)**

- RNSG 1538 - Health Care Concepts III
- RNSG 1237 - Professional Nursing Concepts III
- RNSG 2363 - Clinical - Registered Nursing/Registered Nurse
- SOCI 1301 - Introduction to Sociology

**Third Semester - 11 SCH (Summer Long)**

- MUSI 1306 - Music Appreciation
- RNSG 2539 - Health Care Concepts IV
- RNSG 2138 - Professional Nursing Concepts IV
- RNSG 2260 - Clinical - Registered Nursing/Registered Nurse

**Program Outcomes**

- Use clinical reasoning and knowledge based on the nursing program of study, evidence-based practice outcomes, and research-based policies and procedures as the basis for decision-making and comprehensive, safe patient-centered care.
- Demonstrate skills in using patient care technologies and information systems that support safe nursing practice.
- Promote safety and quality improvement as an advocate and manager of nursing care.
- Coordinate, collaborate and communicate with diverse patients, families, and the interdisciplinary health care team to plan, deliver, and evaluate care that promotes quality of life.
- Adhere to standards of practice within legal, ethical, and regulatory frameworks of the professional nurse.
- Demonstrate knowledge of delegation, management, and leadership skills.
- Demonstrate behavior that reflects the values and ethics of the nursing profession, including a spirit of inquiry.

**Marketable Skills**

- Attitude for Success
- Communication Techniques
- Service Orientation
- Active Listening
- Care Coordination
- Critical Thinking
- Informatics and Medical Software
- Leadership/Management Qualities

**High School Endorsements**

- Public Service

**Expected Salary**

**Texas wage data:** workers on average earn $75,320; 10% of workers earn $54,800 or less; 10% of workers earn $103,040 or more.

**Additional Educational Opportunities**

Students may pursue a Bachelor of Science in Nursing (BSN).

**Career Opportunities**

### Academic Support Courses - 12 SCH
- ITSC 1309 - Introduction to Computing
- HITT 1305 - Medical Terminology I
- POFT 1329 - Beginning Keyboarding
- MDCA 1309 - Anatomy and Physiology for Medical Assistants

### First Semester - 12 SCH
- HPRS 2300 - Pharmacology for Health Professions
- MDCA 1343 - Medical Insurance
- POFT 2301 - Intermediate Keyboarding
- POFM 1302 - Medical Software Applications

### Second Semester - 12 SCH
- HPRS 2301 - Pathophysiology
- ITS W 1304 - Introduction to Spreadsheets
- POFT 1313 - Professional Workforce Preparation
- POFT 2312 - Business Correspondence & Communication

### Marketable Skills
- Critical Thinking
- Communication
- Teamwork
- Personal Responsibility
- Social Responsibility
- Computer Skills
- Organizational Skills
- Customer Service
- Experience Through Volunteer Medical Office Work

### Program Outcomes
- Medical Terminology
- Basic Clinic Operating Procedures
- Medical Office Billing Practices
- Electronic Health Records
- Good working knowledge of anatomy and physiology
- General Knowledge of ICD-10 and CPT Coding
- Submission of claims to insurance carriers
- Answering inquiries on a timely basis
- Microsoft Office Word, Excel, PowerPoint

### High School Endorsements
Public Service

### Expected Salary
**Texas wage data**: workers on average earn $39,990; 10% of workers earn $26,790 or less; 10% of workers earn $67,570 or more.

### Additional Educational Opportunities
- Associate Degree, Bachelor or Master Degree in Business Administration, Public Health, or Health Administration
- Critical Thinking
- Communication
- Teamwork
- Personal Responsibility
- Social Responsibility
- Computer Skills
- Organizational Skills
- Customer Service
- Experience Through Volunteer Medical Office Work

### Career Opportunities
- Medical Secretary
- Healthcare Technician
- Medical Biller/Coder
- Medical Clinic Receptionist
- Front Office Assistant in a Physician's Office
- Unit Clerk in a Health Care Facility
- Allied Health Care Administrative Assistant
- Patient Registration
# Medical Records Coding

## First Semester - 12 SCH
- HITT 1305 - Medical Terminology I
- HPRS 2300 - Pharmacology for Health Professions
- ITSC 1309 - Integrated Software Applications I
- POFM 1302 - Medical Software Applications

## Second Semester - 6 SCH
- HPRS 2301 - Pathophysiology
- MDCA 1309 - Anatomy and Physiology for Medical Assistants

## Third Semester - 13 SCH
- ITSW 1304 - Introduction to Spreadsheets
- HITT 1342 - Ambulatory Coding
- HITT 1345 - Health Care Delivery Systems
- HITT 1441 - Coding and Classification Systems

## Fourth Semester - 9 SCH
- MDCA 1343 - Medical Insurance
- HITT 1301 - Health Data Content and Structure
- HITT 2335 - Coding and Reimbursement Methodologies

## Marketable Skills
- Attitude for Success
- Communication Techniques
- Critical Thinking
- Computer Application
- Leadership/Management Qualities

## Program Outcomes
- Analyze health records for documentation that reflects the correct selection of the principal diagnosis.
- Differentiate between prospective and retrospective payment systems.
- Apply all necessary codes to their full level of specificity for patient encounters.
- Apply the appropriate code set or classification system to the given patient encounter.
- Understand HIPAA in regards to privacy and confidentiality.
- Differentiate between outpatient and inpatient records.

## High School Endorsements
- Public Service

## Expected Salary
- **Texas wage data**: workers on average earn $39,990; 10% of workers earn $26,790 or less; 10% of workers earn $67,570 or more.

## Additional Educational Opportunities
- May pursue an Associate of Science in Health Information Management.

## Career Opportunities
- Physician Offices; Hospitals; Clinics; Billing Companies; Remote Work from Home; Coder; Health Information Clerk; Health Information Specialist; Health Information Technician; Medical Records Clerk; Medical Records Coordinator; Medical Records Technician; Reimbursement Specialist.
## Radiology Technology

### AAS (60 SCH*)

*Semester Credit Hour

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<tr>
<th>First Semester - 13 SCH (Spring)</th>
<th>Second Semester - 11 SCH (Summer)</th>
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<td>BIOL 2401 - Anatomy &amp; Physiology I</td>
<td>BIOL 2402 - Anatomy &amp; Physiology II</td>
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<tr>
<td>RADR 1201 - Introduction to Radiography</td>
<td>RADR 1213 - Principles of Radiographic Imaging I</td>
</tr>
<tr>
<td>RADR 1266 - Practicum - Radiologic Technology/Science - Radiographer</td>
<td>RADR 1267 - Practicum - Radiologic Technology/Science - Radiographer</td>
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<tr>
<td>RADR 1203 - Patient Care</td>
<td>RADR 2301 - Intermediate Radiographic Procedures</td>
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<td>RADR 1311 - Basic Radiographic Procedures</td>
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<thead>
<tr>
<th>Third Semester - 13 SCH (Fall)</th>
<th>Fourth Semester - 13 SCH (Spring)</th>
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<tbody>
<tr>
<td>MUSI 1306 - Music Appreciation</td>
<td>ENGL 1301 - Composition I</td>
</tr>
<tr>
<td>PSYC 2314 - Lifespan Growth and Development</td>
<td>MATH 1314 - College Algebra</td>
</tr>
<tr>
<td>RADR 2209 - Radiographic Imaging Equipment</td>
<td>RADR 2233 - Advanced Medical Imaging</td>
</tr>
<tr>
<td>RADR 2266 - Practicum - Radiologic Technology/Science - Radiographer</td>
<td>RADR 2213 - Radiation Biology and Protection</td>
</tr>
<tr>
<td>RADR 2331 - Advanced Radiographic Procedures</td>
<td>RADR 2366 - Practicum - Radiologic Technology/Science - Radiographer</td>
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<tr>
<th>Fifth Semester - 4 SCH (Summer)</th>
<th>Sixth Semester - 6 SCH (Fall)</th>
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</thead>
<tbody>
<tr>
<td>RADR 2205 - Principles of Radiographic Imaging II</td>
<td>RADR 2335 - Radiologic Technology Seminar</td>
</tr>
<tr>
<td>RADR 2267 - Practicum</td>
<td>RADR 2367 - Practicum</td>
</tr>
</tbody>
</table>

### Marketable Skills

- Review and evaluate developed x-rays, video tape, or computer-generated information to determine if images are satisfactory for diagnostic purposes.
- Operate or oversee operation of radiologic or magnetic imaging equipment to produce images of the body for diagnostic purposes.
- Position patient on examining table and set up and adjust equipment to obtain optimum view of specific body area as requested by physician.
- Process exposed radiographs using film processors or computer generated methods.
- Use radiation safety measures and protection devices to comply with government regulations and to ensure safety of patients and staff.

### Program Outcomes

- Demonstrate proper patient positioning and technical factors required for digital imaging.
- Demonstrate radiation protection.
- Demonstrate effective communication skills with patients and members of the healthcare team.
- Demonstrate professionalism in clinical situations.
- Demonstrate exemplary customer service.
- Demonstrate critical thinking in trauma situations.

### High School Endorsements

- Public Service

### Expected Salary

**Texas wage data:** workers on average earn $59,860; 10% of workers earn $40,530 or less; 10% of workers earn $81,470 or more.

### Additional Educational Opportunities

Students may pursue a Bachelor's Degree in Radiology.

### Career Opportunities

- Hospitals
- Home Health
- Clinics
- Mobile Radiology
- Physician Offices
Surgical Technology

AAS (60 SCH*)
*Semester Credit Hour 5/2024

Program Outcomes

- Competent entry-level Surgical Technologist:
  » Instrumentation, Equipment and Supplies
  » Principles of Asepsis
  » Multi-specialty Surgical Intervention Techniques
- Standards of Professional Practice
- Certification Ready - National Board Exam, CST
- Transferrable Skills and Course Credit: AS, BS, etc.

First Semester - 17 SCH
BIOL 2401 - Anatomy & Physiology I
BIOL 2402 - Anatomy & Physiology II
HITT 1305 - Medical Terminology I
HPRS 2300 - Pharmacology for Health Professions
HPRS 2301 - Pathophysiology

Second Semester - 15 SCH
BIOL 2420 - Microbiology for Non-Science Majors
SRGT 1405 - Introduction to Surgical Technology
SRGT 1409 - Fundamentals of Perioperative Concepts & Techniques
ENGL 1301 - Composition I

Third Semester - 14 SCH
SRGT 1441 - Surgical Procedures I
SRGT 2461 - Clinical - Surgical Technology/Technologist
MATH 1314 - College Algebra
SOCI 1301 - Introduction to Sociology

Fourth Semester - 14 SCH
SRGT 1442 - Surgical Procedures II
SRGT 2462 - Clinical - Surgical Technology/Technologist
PSYC 2314 - Lifespan Growth and Development
MUSI 1306 - Music Appreciation

Working knowledge of anatomy relative to surgical intervention; Understanding of medical language and effective communication; Knowledge of care/use of surgical instrumentation, equipment and supplies; Maintaining sterile operative fields, aseptic patient care and practices; Maintaining medical supply inventory; Prepare and position patients for surgical treatment or examination; Assist healthcare practitioners; Critical thinking, ability to problem-solve and prioritize tasks; Ability to determine compliance with policies and standards.

Program Outcomes

- Competent entry-level Surgical Technologist:
  » Instrumentation, Equipment and Supplies
  » Principles of Asepsis
  » Multi-specialty Surgical Intervention Techniques
- Standards of Professional Practice
- Certification Ready - National Board Exam, CST
- Transferrable Skills and Course Credit: AS, BS, etc.

High School Endorsements

Public Service

Additional Education Opportunities

AD Surgical Technologist or First Assistant
BAAS Health Services Administration
BS Surgical Assistant, MS Surgical Physician Assistant

Expected Salary

Texas wage data: (Surgical Technologist) workers on average earn $49,120 (higher nationally); 10% of workers earn $33,430 or less; 10% of workers earn $67,340 or more; (Surgical Assistant) - upper tier earns $88,000.

Career Opportunities

Surgical Technician/Specialist; Surgery Scheduler; Surgical First-Assistant; Veterinary Assistant; Anesthesia Technician; Sterile Processing Technician; Endoscopy Technician; Materials Management/Inventory Control; Labor and Delivery Technician; Medical Services and Equipment Salesperson; Phlebotomy Technician.
# Vocational Nursing

## Prerequisites - 14 SCH
- BIOL 2401 - Anatomy & Physiology I
- BIOL 2402 - Anatomy & Physiology II
- PSYC 2314 - Lifespan Growth and Development
- BIOL 1322 - Nutrition & Diet Therapy

## First Semester - 12 SCH (Summer)
- VNSG 1222 - Vocational Nursing Concepts
- VNSG 1160 - Clinical - Licensed Practical/Vocational Nurse Training
- VNSG 1423 - Basic Nursing Skills
- VNSG 1500 - Nursing in Health and Illness I

## Second Semester - 13 SCH
- VNSG 1330 - Maternal - Neonatal Nursing
- VNSG 1509 - Nursing in Health & Illness II
- VNSG 1560 - Clinical - Licensed Practical/Vocational Nurse Training

## Third Semester - 12 SCH
- VNSG 1219 - Leadership and Professional Development
- VNSG 1236 - Mental Health
- VNSG 2410 - Nursing in Health & Illness III
- VNSG 2460 - Clinical - Licensed Practical/Vocational Nurse Training

## Marketable Skills
- Service Orientation
- Active listening
- Coordination
- Attitude for Success
- Critical Thinking
- Medical Software
- Leadership/management Qualities

## Program Outcomes
- Apply clinical decision-making skills utilizing the nursing process when formulating clinical judgments.
- Manage safe, competent, holistic care for a diverse group of patients within the scope of the vocational nurse.
- Communicate therapeutically and effectively with individuals, significant support persons, and members of the multidisciplinary healthcare team.

## High School Endorsements
- Public Service

## Expected Salary
- **Texas wage data:** workers on average earn $47,760; 10% of workers earn $35,670 or less; 10% of workers earn $63,140 or more.

## Additional Educational Opportunities
- Students may pursue an Associate of Applied Science in Nursing.

## Career Opportunities
- Physician Offices, Home Health Agencies, Hospitals, Clinics, Schools, Long-Term Care Facilities, Private Duty Nurse.
### First Semester - 15 SCH
- COSC 1301 - Introduction to Computing
- EDUC/PSYC 1300 - Learning Framework
- ENGL 1301 - Composition I
- HIST 1301 - United States History I
- MATH 1342 - Elementary Statistical Methods

### Second Semester - 15 SCH
- DRAM 1310 - Introduction to Theater
- ENGL 1302 - Composition II
- HIST 1302 - United States History II
- PSYC 2301 - General Psychology
- SPCH 1315 - Public Speaking

### Third Semester - 15 SCH
- BIOL 1322 - Nutrition & Diet Therapy
- GOVT 2305 - Federal Government
- HIST 2311 - Western Civilization
- Six hours of electives

### Fourth Semester - 15 SCH
- GOVT 2306 - Texas Government
- PHYS 1303 - Stars and Galaxies
- SOCI 1301 - Introduction to Sociology
- Six hours of electives

### Marketable Skills
- Critical Thinking Skills: Creative thinking, innovation, inquiry, and analysis, evaluation, and synthesis of information, using technology as appropriate.
- Communication Skills: Effective development, interpretation, and expression of ideas through written, oral, and visual communication.
- Empirical and Quantitative Skills: Manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
- Teamwork: Ability to be flexible and to consider different points of view and to work effectively with others, taking the initiative when appropriate, to support a shared purpose or goal.
- Social Responsibility: Intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.
- Personal Responsibility: A strong work ethic and the ability to connect choices, actions, and consequences to ethical decision-making.

### Program Outcomes
- Demonstrate critical thinking skills which indicate that the student can see the intellectual connections between different disciplinary fields.
- Demonstrate knowledge of the ethical challenges encountered by practitioners of different intellectual disciplines.
- Demonstrate knowledge of civic responsibility and the characteristics of regional, national, and global communities.

### Transfer Path Requirements
- Students should refer to the catalog of the institution to which they plan to transfer for degree requirements.
  - For Texas A&M University - Commerce and Texas A&M University - Texarkana:
    - A student completing the Paris Junior College core curriculum is considered Core complete at Texas A&M Commerce and Texarkana.
    - No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce or Texarkana. Another 60 or more must be completed at TAMU-Commerce or Texarkana.
    - At TAMU-Commerce, a Bachelor of Arts/Bachelor of Science is offered in Interdisciplinary Studies (Elementary Education).
    - TAMU-Texarkana offers a Bachelor of General Studies degree.

### Career Opportunities
- Journalist; Script Writer; Advertising; Tour Guide/Planner; Sales; Foreign Correspondent; Archivist; Human Resources Representative; Curator; Import/Export Representative; Public Relations; Public Policy Analyst.
- Depends on how students tailor their curricula, as different fields can be combined to prepare the student for various careers after completing a baccalaureate degree.
### Marketable Skills

- Utilize the scientific method to solve problems.
- Collect, organize/analyze data and effectively manage time.
- Interpret results to write reports and summaries of findings.
- Use scientific reasoning to identify strengths/weaknesses and develop alternative solutions to problems.
- Use computers and software to process and present data.
- Effective development, interpretation, and expression of ideas through written, oral, and visual communication.
- Manipulation and analysis of a variety of mathematical data.
- Work collaboratively with others and be an active listener.
- Lead when appropriate during laboratory or group projects.
- Knowledge base in molecular, cellular, evolutionary, and organismal/systems biology.
- Utilize proper laboratory equipment safely and efficiently.
- Follow laboratory protocols effectively.

### Program Outcomes

- Demonstrate an understanding of the nature of science and the scientific method as related to biology.
- Demonstrate an understanding of biological concepts related to cell, molecular, organismal, and evolutionary biology.
- Use appropriate biological laboratory techniques and equipment safely and proficiently.

### Transfer Path/Requirements

For Texas A&M-Commerce

- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M-Commerce.
- No more than 60-68 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the Biology major, eight advanced courses are required by TAMU-Commerce: BSC 303 (Cell Biology) plus seven courses in evolution/ ecology, physiology, and genetics.
- Required support courses include two in college physics, calculus 1, and MATH 453 (Essential Statistics).

### Expected Salary

**Texas wage data**: workers on average earn $52,500; 10% of workers earn $28,700 or less; 10% of workers earn $76,880 or more.

**US wage data**: workers on average earn $46,340; 10% of workers earn $30,440 or less; 10% of workers earn $74,600 or more.

### Career Opportunities

**BS Minimum**: Biochemist; Microbiologist/Epidemiologist; Wildlife Biologist; Zoologist; Molecular and Cytogenetic Technology; Biological or Pharmaceutical Sales Representative; Histotechnologist; Clinical Laboratory Scientist; Cell Biologist; Secondary School Teacher; Scientific Products Specialist; Botany/Horticulture; Public Health and Safety Specialist.  **MS Minimum**: Virologist; Dentist; Veterinarian; Nurse Practitioner; Physician's Assistant; Genetic Counselor; Medical Doctor; Life Science Research; Pharmacist; Biological Science Professor; Nutritionist/Dietician.

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### First Semester - 17 SCH

- ENGL 1301 - Composition I
- BIOL 1406 - Biology for Science Majors I
- CHEM 1411 - General Chemistry I
- EDUC/PSYC 1300 - Learning Framework
- MATH 1314 - College Algebra

### Second Semester - 14 SCH

- ENGL 1302 - Composition II
- BIOL 1407 - Biology for Science Majors II
- CHEM 1412 - General Chemistry II
- MATH 2312 - Pre-Calculus

### Third Semester - 16 SCH

- HIST 1301 - United States History I
- CHEM 2423 - Organic Chemistry I
- MUSI 1306 - Music Appreciation
- GOVT 2305 - Federal Government
- PSYC 2314 - Lifespan Growth & Development

### Fourth Semester - 13 SCH

- HIST 1302 - United States History II
- CHEM 2425 - Organic Chemistry II
- GOVT 2306 - Texas Government
- HIST 2321 - World Civilization I

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### High School Endorsements

- STEM
## Chemistry

### First Semester - 15 SCH
- ENGL 1301 - Composition I
- MATH 2413 - Calculus I
- HIST 1301 - United States History I
- EDUC/PSYC 1100 - Learning Framework
- CHEM 1411 - General Chemistry I

### Second Semester - 17 SCH
- ENGL 1302 - Composition II
- MATH 2414 - Calculus II
- HIST 1302 - United States History II
- ARTS 1301 - Art Appreciation
- CHEM 1412 - General Chemistry II

### Third Semester - 14 SCH
- CHEM 2423 - Organic Chemistry I
- ECON 2301 - Principles of Macroeconomics
- GOVT 2305 - Federal Government
- PHYS 2425 - University Physics I

### Fourth Semester - 14 SCH
- CHEM 2425 - Organic Chemistry II
- HIST 2321 - World Civilization I
- GOVT 2306 - Texas Government
- PHYS 2426 - University Physics II

### Marketable Skills
- Knowledge of the chemical composition, structure, and properties of a substance to understand the uses of chemicals, their interactions, their danger signs, and proper disposal methods.
- Utilize proper laboratory equipment safely and efficiently.
- Follow laboratory protocols effectively.
- Apply laboratory experience with advanced testing techniques and equipment such as physical and chemical separation, spectroscopy, probeware, and purification of chemical compounds by distillation, extraction, chromatography, and recrystallization.
- Use scientific rules and methods to solve problems with integrated technology and use logic and reasoning to identify the strengths and weaknesses of alternative solutions.
- Effective development, interpretation, and expression of ideas through written, oral, and visual communication.
- Manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

### Program Outcomes
- Demonstrate mastery of the processes of science, the scientific method and established scientific knowledge.
- Demonstrate knowledge of basic terminology and understanding of major physical science concepts.
- Use appropriate laboratory techniques and equipment safely and proficiently.

### Transfer Path/Requirements
For Texas A&M-Commerce
- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M-Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the Chemistry major, eight advanced courses are required by TAMU-Commerce: CHEM 351 (Physical Chemistry) plus seven courses in quantitative, biochemistry, and inorganics.
- Required support courses include two in college physics, and Calculus 3.

### High School Endorsements
- STEM

### Expected Salary
**Texas wage data:** workers on average earn $58,640; 10% of workers earn $32,960 or less; 10% of workers earn $96,060 or more.
**US wage data:** workers on average earn $49,820; 10% of workers earn $31,720 or less; 10% of workers earn $81,260 or more.

### Career Opportunities
**BS Minimum:** Chemists and Materials Scientists; Chemical Engineers; Biochemists; Biophysicists; Physical Scientists (all other); Chemistry Teachers (postsecondary); Medical and Clinical Laboratory Technologists; Secondary School Teachers; Nuclear Medicine Technologists; Pharmaceutical Sales Representatives; Public Health and Safety Specialists.
**MS Minimum:** Pharmacists; Family and General Practitioners; Veterinarians; Anesthesiologists; Dentists; Nurse Anesthetists; Physician Assistants.
**Computer Science**

**AS (60 SCH*)**

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<td>DRAM 1310 - Introduction to Theater</td>
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<tr>
<td>EDUC/PSYC 1300 - Learning Framework</td>
<td>ENGL 1302 - Composition II</td>
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<tr>
<td>ENGL 1301 - Composition I</td>
<td>HIST 1302 - United States History II</td>
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<tr>
<td>HIST 1301 - United States History I</td>
<td>MATH 2414 - Calculus II</td>
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<tr>
<td>MATH 2413 - Calculus I</td>
<td>SPCH 1321 - Business &amp; Professional Communication</td>
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<td>COSC 1437 – Programming Fundamentals II</td>
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<td>ECON 2302 - Principles of Microeconomics</td>
<td>COMM 1307 - Introduction to Mass Communications</td>
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<td>GOVT 2305 - Federal Government</td>
<td>GOVT 2306 - Texas Government</td>
</tr>
<tr>
<td>PHYS 2425 - University Physics I</td>
<td>PHYS 2426 - University Physics II</td>
</tr>
</tbody>
</table>

** Marketable Skills **

- Coordinate software or hardware installation; Monitor computer system performance to ensure proper operation; Test software performance; Troubleshoot issues with computer applications or systems; Modify software programs to improve performance; Test, maintain, and monitor computer programs and systems, including coordinating the installation of computer programs and systems; Troubleshoot program and system malfunctions to restore normal functions; Analyze business problems; Interact with computers; Process information; Communicate with supervisors, peers, or subordinates; Analyze data or information.

**Program Outcomes**

- Analyze a problem definition to identify inputs, processes, and outputs required to present a viable solution.
- Utilize industry standard application software to produce personal, business, and academic reports and presentations.
- Demonstrate knowledge of computer Industry terminology and jargon.
- Recognize the interaction of stand-alone and network devices, operating systems, and applications.

**High School Endorsements**

- STEM

**Expected Salary**

**Texas wage data**: workers on average earn $97,240; 10% of workers earn $58,140 or less; 10% of workers earn $162,110.

**Career Opportunities**

- Programming; Database Administrator; Systems Development/Analysis; Computer Support Specialist; Software Development; Web Developer; Computer Engineer.

**Additional Education Opportunities**

Students should consider a BS and MS in Computer Information Systems, Computer Science, or Management Information Systems.
### First Semester - 17 SCH
- ENGL 1301 - Composition I
- MATH 2413 - Calculus I
- HIST 1301 - United States History I
- CHEM 1411 - General Chemistry I
- EDUC/PSYC 1300 - Learning Framework

### Second Semester - 16 SCH
- ENGL 1302 - Composition II
- MUSI 1306 - Music Appreciation
- HIST 1302 - United States History II
- MATH 2414 - Calculus II
- ECON 2301 - Principles of Macroeconomics

### Third Semester - 14 SCH
- MATH 2415 - Calculus III
- COSC 1336 - Programming Fundamentals I
- GOVT 2305 - Federal Government
- PHYS 2425 - University Physics I

### Fourth Semester - 13 SCH
- MATH 2320 - Differential Equations
- HIST 2321 - World Civilization I
- GOVT 2306 - Texas Government
- PHYS 2426 - University Physics II

### Marketable Skills
- Knowledge of the practical application of engineering and science.
- Knowledge of raw materials, production processes, quality control.
- Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
- Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, and models.
- Knowledge of algebra, geometry, calculus, statistics, and their applications.
- Knowledge of circuit boards, processors, chips, electronic equipment, electrical systems, and computer hardware and software, including applications and programming.
- Knowledge and prediction of physical principles, laws, their inter-relationships, and applications to understanding fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic and sub-atomic structures and processes.

### Program Outcomes
- Demonstrate mastery of the processes of science, the scientific method and established scientific knowledge.
- Demonstrate knowledge of basic terminology and understanding of major physical science concepts.
- Use appropriate laboratory techniques and equipment safely and proficiently.

### Transfer Path/Requirements
For Texas A&M-Commerce
- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M-Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the Engineering major, several advanced courses are required by TAMU-Commerce: ENGR 210 (Engineering Mechanics) plus courses in statistics, management, computing, and systems engineering. Many courses will be specific to the engineering track chosen.
- Required support courses include differential equations, linear algebra and calculus 3.

### Expected Salary
**Texas wage data:** workers on average earn $96,300; 10% of workers earn $59,410 or less; 10% of workers earn $161,080 or more.  
**US wage data:** workers on average earn $88,950; 10% of workers earn $57,950 or less; 10% of workers earn $136,930 or more.

### Career Opportunities
**BS Minimum:** Aerospace Engineers; Industrial Engineers (including health and safety); Agricultural Engineers; Marine Engineers; Naval Architects; Biomedical Engineers; Materials Engineers; Chemical Engineers; Mechanical Engineers; Civil Engineers; Mining/Geological Engineers; Computer Hardware Engineers, Drafters, Engineering and Mapping Technicians.  
**MS Minimum:** Nuclear Engineers; Electrical/Electronics Engineers; Petroleum Engineers; Environmental Engineers; Engineers (all other).
## Geology

### First Semester - 16 SCH
- ENGL 1301 - Composition I
- ARTS 1301 - Art Appreciation
- HIST 1301 - United States History I
- GEOL 1403 - Physical Geology
- EDUC/PSYC 1300 - Learning Framework

### Second Semester - 16 SCH
- ENGL 1302 - Composition II
- HIST 1302 - United States History II
- MATH 1314 - College Algebra
- GEOL 1404 - Historical Geology
- COSC 1301 - Introduction to Computing

### Third Semester - 14 SCH
- CHEM 1411 - General Chemistry I
- SOCI 1301 - Introduction to Sociology
- GOVT 2305 - Federal Government
- BIOL 1407 - Biology for Science Majors II

### Fourth Semester - 14 SCH
- CHEM 1412 - General Chemistry II
- HIST 2321 - World Civilizations I
- GOVT 2306 - Texas Government
- PHYS 1401 - College Physics I

### Marketable Skills
- Knowledge of principles and methods for describing the features of land, sea, and air masses, including their physical characteristics, locations, interrelationships, and the historical distribution of plant, animal, and human life.
- Collect, organize/analyze data and effectively manage time.
- Interpret results to write reports and summaries of findings.
- Use scientific reasoning to identify strengths/weaknesses and develop alternative solutions to problems.
- Use computers and software to process and present data.
- Effective development, interpretation, and expression of ideas through written, oral, and visual communication.
- Manipulation and analysis of a variety of mathematical data.
- Work collaboratively with others and be an active listener.

### Program Outcomes
- Demonstrate mastery of the processes of science, the scientific method and established scientific knowledge.
- Demonstrate knowledge of basic terminology and understanding of major science concepts.
- Use appropriate laboratory techniques and equipment safely and proficiently.

### Transfer Path/Requirements
For Texas A&M-Commerce
- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M-Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the Geology major, 10 advanced courses are required by TAMU-Commerce: GEOL 312 (Structural / Tectonics) plus nine courses in geochemistry, field methods, mineralogy, historical geology, and geophysics.
- Required support courses include two in university physics and a summer field geology capstone.

### High School Endorsements
- STEM

### Expected Salary
- **Texas wage data:** workers on average earn $90,980; 10% of workers earn $45,320 or less; 10% of workers earn $195,630 or more.
- **US wage data:** workers on average earn $93,800; 10% of workers earn $57,040 or less; 10% of workers earn $156,270 or more.

### Career Opportunities
- **BS Minimum:** Environmental Scientist / Specialist; Secondary School Teacher; Geoscientist; Geographer Soil / Plant Scientist; Hydrologist; Geological Technician; Surveyor; Cartographers; Photogrammetrist; Mining Consultant; Safety Engineer; Surveying and Mapping Technician.
- **MS Minimum:** Petroleum Engineer; Mine Engineer; Planning Engineer; Mining / Geological Engineer; Geology Professor.
First Semester - 14 SCH
MATH 2413 - Calculus I
ENGL 1301 - Composition I
HIST 1301 - United States History I
EDUC/PSYC 1100 - Learning Framework
COSC 1301 - Introduction to Computing

Second Semester - 16 SCH
MATH 2414 - Calculus II
ENGL 1302 - Composition II
HIST 1302 - United States History II
MUSI 1306 - Music Appreciation
ECON 2301 - Principles of Macroeconomics

Third Semester - 14 SCH
MATH 2415 - Calculus III
GOVT 2305 - Federal Government
PHYS 2425 - University Physics I
COSC 1336 - Programming Fundamentals I

Fourth Semester - 16 SCH
MATH 2320 - Differential Equations
GOVT 2306 - Texas Government
PHYS 2426 - University Physics II
COSC 1337 - Programming Fundamentals II
COMM 1307 - Introduction to Mass Communications

Marketable Skills
- Identify complex problems and review information to develop and implement solutions.
- Choosing the right method or formulas to solve a problem.
- Apply general rules to specific problems and combine information and skills to reach conclusions.
- Observing, receiving, and gathering information or data to aid in solving problems.
- Analyzing information/data and evaluating results to choose a best solution to solve problems or make conclusions.
- Using logic and reasoning to identify the strengths and weaknesses of solutions, conclusions, or approaches to problems.
- Effectively comprehending, speaking, and writing information, conclusions, and solutions to persons both in and out of your discipline.

Program Outcomes
- Apply algebraic, analytic, geometric, or statistical reasoning to solve abstract and applied problems appropriate to an individual discipline.
- Interpret mathematical, quantitative or symbolic models such as formulas, graphs and tables, and draw inferences from them.
- Construct and interpret mathematical models using numerical, graphical, symbolic, and verbal representations with the help of technology in order to draw conclusions or make predictions.

Transfer Path/Requirements
For Texas A&M-Commerce
- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M-Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the Mathematics major, eight advanced math courses are required by TAMU-Commerce after the Calculus sequence.
- Students who are considering teaching in high schools or middle schools must follow guidelines set for teacher certification.
- Students should refer to the catalog of the institution to which they plan to transfer for degree requirements.

High School Endorsements
STEM

Expected Salary
Texas wage data: workers on average earn $62,090; 10% of workers earn $41,550 or less; 10% of workers earn $104,330 or more.
US wage data: workers on average earn $110,860; 10% of workers earn $61,130 or less; 10% of workers earn $170,150 or more.

Career Opportunities
BS Minimum: Actuary; Statistician; Market Research Analyst; Economist; Engineer; Financial Analyst; Data Scientist; Forensic Analyst; Math Teacher. MS Minimum: College Professor; Astronomer.
Physics

First Semester - 17 SCH

ENGL 1301 - Composition I
MATH 2413 - Calculus I
HIST 1301 - United States History I
CHEM 1411 - General Chemistry I
EDUC/PSYC 1300 - Learning Framework

Second Semester - 16 SCH

ENGL 1302 - Composition II
MUSI 1306 - Music Appreciation
HIST 1302 - United States History II
MATH 2414 - Calculus II
ECON 2301 - Principles of Macroeconomics

Third Semester - 14 SCH

MATH 2415 - Calculus III
COSC 1336 - Programming Fundamentals I
GOVT 2305 - Federal Government
PHYS 2425 - University Physics I

Fourth Semester - 13 SCH

MATH 2320 - Differential Equations
HIST 2321 - World Civilizations I
GOVT 2306 - Texas Government
PHYS 2426 - University Physics II

Marketable Skills

- Using scientific rules and methods to solve problems.
- Understanding physical principles, laws, interrelationships, and applications for dealing with fluid, material and atmospheric dynamics and mechanical, electrical, atomic, and subatomic structures and processes.
- Knowledge of the physical principles and skills necessary to solve engineering and technology problems, and to design and produce technical goods and services.
- Application of critical thinking, logic, and scientific reasoning to solve emerging problems in new areas such as developing new energy sources, biophysics systems and technology, sports medicine, and environmental control changes.
- Developing skills to develop and enhance a career in teaching, research, technology, engineering, and physics-related areas in the future.

Program Outcomes

- Demonstrate mastery of the processes of science, the scientific method and established scientific knowledge.
- Demonstrate knowledge of basic terminology and understanding of major physical science concepts.
- Use appropriate laboratory techniques and equipment safely and proficiently.

Transfer Path/Requirements

For Texas A&M-Commerce

- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M-Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the Physics major, 11 advanced courses are required by TAMU-Commerce: PHYS 412 (Electricity and Magnetism) plus 10 courses in quantum mechanics, waves and motion, astronomy, and mathematical/computational physics.
- Required support courses include differential equations and Calculus 3.

High School Endorsements

- STEM

Expected Salary

Texas wage data: workers on average earn $111,300; 10% of workers earn $49,620 or less; 10% of workers earn $195,320 or more. US wage data: workers on average earn $129,850; 10% of workers earn $67,450 or less; 10% of workers earn $208,000 or more.

Career Opportunities

BS Minimum: Physical Scientist Assistant; Radiologic Technologist; Magnetic Resonance Imaging Technologist; Nuclear Medicine Technologist; Physics Teacher (secondary). MS Minimum: Physicist; Astronomer; Physics Teacher (Postsecondary); Atmospheric / Space Scientist; Materials Scientist; Physical Scientist.
### First Semester - 15 SCH
- GOVT 2305 - Federal Government
- ENGL 1301 - Composition I
- HIST 1301 - United States History I
- MATH 1342 - Elementary Statistical Methods
- EDUC/PSYC 1300 - Learning Framework

### Second Semester - 15 SCH
- GOVT 2306 - Texas Government
- ENGL 1302 - Composition II
- HIST 1302 - United States History II
- PHYS 1303 - Stars and Galaxies
- SOCI 1301 - Introduction to Sociology

### Third Semester - 15 SCH
- HIST 2321 - World Civilizations I
- SPCH 1321 - Business & Professional Communication
- ENGL 2331 - World Literature
- SPAN 2311 - Intermediate Spanish I
- BIOL 1322 - Nutrition & Diet Therapy

### Fourth Semester - 15 SCH
- BUSI 2301 - Business Law
- HIST 2322 - World Civilizations II
- ECON 2301 - Principles of Macroeconomics
- SPAN 2312 - Intermediate Spanish II
- ARTS 1301 - Art Appreciation

### Marketable Skills
- **Law and Government** - Knowledge of laws, court procedures, government regulations, executive orders, and the political process.
- **Leadership** - The ability to maximize collective potential and guide others toward achieving shared goals.
- **Critical Thinking** - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to community problems.
- **Active Listening** - Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- **Communication** - Confident expression of ideas through oral and written communication with respect for clarity of meaning, grammar, composition, and spelling.
- **Interpersonal Skills** - Ability to interact with others adeptly and appropriately.

### Expected Salary
- **Texas wage data:** workers on average earn $92,720; 10% of workers earn $55,730 or less; 10% of workers earn $120,340 or more.
- **US wage data:** workers on average earn $125,350; 10% of workers earn $62,840 or less; 10% of workers earn $170,800 or more.

### Career Opportunities
- **AA Minimum:** Elected Official; Issue Advocate; Civil Servant; Law Enforcement or Correctional Officer; Community Organizer; Teaching Assistant; Research Assistant.
- **BA Minimum:** Teacher; Social Worker; Social Media Manager; Public Relations Specialist; Lobbyist; Journalist; Political Consultant.
- **MA Minimum:** Political Scientist; College Professor; Lawyer; Judge; Campaign Manager; Foreign Service Official; Non-Governmental Organization and Non-Profit Manager; Policy Analyst; Market Researcher; Political Party Strategist.

### Program Outcomes
- **Students will:**
  - Explain constitutional principles and historical experiences that have shaped government institutions in the U.S. and Texas.
  - Evaluate public opinion, civic engagement, and participatory practices from the perspective of a responsible citizen.
  - Analyze challenges facing local, state, and national policymakers.

### Transfer Path/Requirements
- **For Texas A&M Commerce**
  - A student completing the PJC curriculum is considered Core complete at TAMU-C.
  - No more than 60-66 sch from PJC will be applied to a bachelor degree at TAMU-C. Another 60 or more must be completed at TAMU-C.
  - For the Political Science major, 10 advanced courses are required by TAMU-C: PSCI 330 (Intro to Political Science), PSCI 335 (Political Economy), PSCI 488 (Contemporary Ideas), and one or more courses in each of these areas: Political Theory & Philosophy, Public Policy, American Political Processes, American Political Institutions, Comparative Politics, International Relations.
  - Students should take both GOVT 2305 and 2306 at PJC before transferring to another institution.
  - Students who are considering teaching in high schools or middle schools must follow guidelines set for teacher certification.
  - Students should refer to the catalog of the institution to which they plan to transfer for degree requirements.
# History

**First Semester - 14 SCH**

- ENGL 1301 - Composition I
- HIST 1301 - United States History I
- ARTS 1301 - Art Appreciation
- EDUC/PSYC 1100 - Learning Framework
- GEOL 1401 - Earth Sciences for Non-Science Majors I

**Second Semester - 16 SCH**

- ENGL 1302 - Composition II
- HIST 1302 - United States History II
- MATH 1332 - Contemporary Mathematics
- COSC 1301 - Introduction to Computing
- GEOL 1402 - Earth Sciences for Non-Science Majors II

**Third Semester - 15 SCH**

- SPCH 1321 - Business & Professional Communication
- GOVT 2305 - Federal Government
- SPAN 2311 - Intermediate Spanish I
- ENGL 2331 - World Literature
- HIST 2321 - World Civilizations I

**Fourth Semester - 15 SCH**

- SPAN 2312 - Intermediate Spanish II
- GOVT 2306 - Texas Government
- SOCI 1301 - Introduction to Sociology
- ENGL 2322 - British Literature I
- HIST 2322 - World Civilizations II

## Marketable Skills

- **Active Listening** - giving full attention to what other people are saying, taking time to understand points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- **Computer Skills** - ability to effectively use word processing software, information databases, and third-party apps.
- **Critical Thinking** - ability to use historical thinking skills to identify the strengths and weaknesses of arguments, and to provide alternative viewpoints, approaches, conclusions, and solutions to problems encountered.
- **Inductive Reasoning** - the ability to make evidence-driven judgments to synthesize multiple pieces of information, and able to form general rules, identify bias or subjectivity, establish causality, and make conclusions about complex topics, particularly as it relates to historical documents.
- **Communication** - ability to communicate ideas effective through written, oral, and visual delivery modes.

## Program Outcomes

- Create an argument through the use of historical evidence.
- Analyze and interpret primary and secondary sources.
- Analyze the effects of historical, social, political, economic, cultural, and global forces on U.S. and world history.

## Transfer Path/Requirements

For Texas A&M Commerce

- A student completing the PJC curriculum is considered Core complete at TAMU-C.
- No more than 60-66 sch from PJC will be applied to a bachelor degree at TAMU-C. Another 60 or more must be completed at TAMU-C.
- For the History Science major, 12 advanced courses are required by TAMU-C.
- Students who are considering teaching in high schools or middle schools must follow guidelines set for teacher certification.

## Expected Salary

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>employees on average earn $69,310; 10% of workers earn $45,880 or less; 10% of workers earn $113,310 or more.</td>
<td>$45,880</td>
<td>$113,310</td>
</tr>
<tr>
<td>US</td>
<td>employees on average earn $63,100; 10% of workers earn $29,540 or less; 10% of workers earn $116,340 or more.</td>
<td>$29,540</td>
<td>$116,340</td>
</tr>
</tbody>
</table>

## High School Endorsements

- Social & Behavioral Sciences

## Career Opportunities

**AA Minimum:** Political Campaign Worker; Paralegal, Tour Guide, Research Assistant.  
**BA Minimum:** Public School Teacher; Research Analyst; Government Specialist; Lobbyist; Grant Writer; Print or Broadcast Journalist; Filmmaker; Public Administration; Records Manager; Historic Preservation.  
**MA Minimum:** College Instructor; Foreign Service/Diplomatic Corps; Lawyer; Archivist; Museum Curator; Librarian.
# Psychology

<table>
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<tr>
<th>First Semester - 14 SCH</th>
<th>Second Semester - 16 SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301 - Composition I</td>
<td>ENGL 1302 - Composition II</td>
</tr>
<tr>
<td>HIST 1301 - United States History I</td>
<td>HIST 1302 - United States History II</td>
</tr>
<tr>
<td>PSYC 2301 - General Psychology</td>
<td>MATH 1342 - Elementary Statistical Methods</td>
</tr>
<tr>
<td>PSYC 1100 - Learning Framework</td>
<td>COSC 1301 - Introduction to Computing</td>
</tr>
<tr>
<td>BIOL 1408 - Biology for Non-Science Majors I</td>
<td>BIOL 1409 - Biology for Non-Science Majors II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester - 15 SCH</th>
<th>Fourth Semester - 15 SCH</th>
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</thead>
<tbody>
<tr>
<td>SPCH 1321 - Business and Professional Communication</td>
<td>DRAM 1310 - Introduction to Theater</td>
</tr>
<tr>
<td>GOVT 2305 - Federal Government</td>
<td>GOVT 2306 - Texas Government</td>
</tr>
<tr>
<td>PSYC 2314 - Lifespan Growth and Development</td>
<td>PSYC 2319 - Social Psychology</td>
</tr>
<tr>
<td>SPAN 2311 - Intermediate Spanish I</td>
<td>COMM 1307 - Introduction to Mass Communications</td>
</tr>
<tr>
<td>ENGL 2331 - World Literature</td>
<td>SPAN 2312 - Intermediate Spanish II</td>
</tr>
</tbody>
</table>

## Marketable Skills

- Critical Thinking - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems as they pertain to physiological and psychological processes involved in human behavior.
- Empirical and Quantitative Skills - Manipulation and analysis of numerical data or observable facts resulting in informed conclusions regarding various research methods, and their characteristics, used in the scientific study of psychology and accepted approaches and standards in psychological assessment and evaluation.
- Social Perceptiveness - Being aware of others' reactions and understanding objective variables that contribute to why people think, feel, and behave as they do.
- Service Orientation - Actively looking for ways to help people, promote prosocial behaviors, and increase altruism.
- Written Comprehension - The ability to read and understand information and ideas presented in writing.
- Oral Comprehension - The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Active Listening - Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times to increase tolerance, appreciation of diversity, and, overall, understanding of human mental processes and behaviors.

## Program Outcomes

- Demonstrate knowledge of the major theoretical perspectives in psychology.
- Demonstrate the ability to interpret what constitutes valid research in the field of psychology.
- Identify variable, physiological and psychological, influencing adaptive and maladaptive human behavior and mental processes.

## Transfer Path / Requirements

- A student completing the PJC curriculum is considered Core complete at Texas A&M Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the Psychology major, 13 advanced courses are required by TAMU-Commerce: Psychology Core courses, plus Psychology Natural Science Core, Psychology Social Science Core, Psychology Development Core, Psychology Applied Core, Psychology Special Topic and Psychology Independent Study.

## High School Endorsements

### Social & Behavioral Sciences

### Expected Salary

**Texas wage data:** workers on average earn $68,040; 10% of workers earn $44,130 or less; 10% of workers earn $101,050 or more. **US wage data:** workers on average earn $79,820; 10% of workers earn $46,410 or less; 10% of workers earn $138,550 or more.

## Career Opportunities

**AA Minimum:** Social Services Assistant, Psychiatric Technician, Teacher's Aide, Home-Care Aide, Family/Victim Advocate, Research Assistant, Correctional Officer, Community Service Manager, Administrative Service Manager. **BA Minimum:** Substance Abuse Counselor, Career/Employment Counselor, Activities Director, Probation/Parole Officer, Teacher, Social Worker, Public Relations Specialist, Family Intervention Specialist, Qualified Intellectual Disability Professional, Human Resources Specialist. **MA Minimum:** Licensed Professional Counselor, Licensed Psychological Associate, School Psychologist, Psychology Professor, Industrial/Organizational Psychologist, Clinical Psychologist, Counseling Psychologist, Social Psychologist, Experimental/Research Psychologist, Sports Psychologist, Forensic Psychologist, Developmental Psychologist.
### First Semester - 14 SCH

- ENGL 1301 - Composition I
- HIST 1301 - United States History I
- SOCI 1301 - Introduction to Sociology
- PSYC 1100 - Learning Framework
- BIOL 1408 - Biology for Non-Science Majors I

### Second Semester - 16 SCH

- ENGL 1302 - Composition II
- HIST 1302 - United States History II
- MATH 1342 - Elementary Statistical Methods
- COSC 1301 - Introduction to Computing
- BIOL 1409 - Biology for Non-Science Majors II

### Third Semester - 15 SCH

- ARTS 1301 - Art Appreciation
- GOVT 2305 - Federal Government
- SOCI 1306 - Social Problems
- SPAN 2311 - Intermediate Spanish I
- SPCH 1321 - Business and Professional Communication

### Fourth Semester - 15 SCH

- COMM 1307 - Introduction to Mass Communications
- GOVT 2306 - Texas Government
- SPAN 2312 - Intermediate Spanish II
- ENGL 2331 - World Literature
- PSYC 2301 - General Psychology

### Marketable Skills

- Critical Thinking - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems as they pertain to societal issues.
- Empirical and Quantitative Skills - Manipulation and analysis of numerical data or observable facts resulting in informed conclusions regarding various research methods, and their characteristics, used in the scientific study of sociology.
- Social Perceptiveness - Being aware of others' reactions and understanding objective variables that contribute to why people think, feel, and behave as they do.
- Written Comprehension - The ability to read and understand information and ideas presented in writing.
- Oral Comprehension - The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Active Listening - Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times to increase tolerance, appreciation of diversity, and, overall, understanding of social structure and its influence.
- Speaking - Talking to others to convey information effectively and appropriately.
- Speech Clarity - The ability to speak clearly so others can understand you.

### Program Outcomes

- Demonstrate the ability to apply sociological principles and theoretical perspectives to major social problems in contemporary society.
- Demonstrate the ability to analyze and interpret human society, social institutions, and individuals and how they affect one another.
- Demonstrate ability to apply principles and theories in written and oral communication which could include but are not limited to social stratification, gender, race/ethnicity, and deviance.

### Transfer Path / Requirements

For Texas A&M-Commerce

- A student completing the Paris Junior College core curriculum is considered Core complete at Texas A&M-Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the Sociology major, nine advanced courses are required by TAMU-Commerce.
- Students who are considering teaching in high schools or middle schools must follow guidelines set for teacher certification.

### High School Endorsements

Social & Behavioral Sciences

### Expected Salary

**Texas wage data:** workers on average earn $59,490; 10% of workers earn $44,850 or less; 10% of workers earn $118,790 or more. **US wage data:** workers on average earn $86,110; 10% of workers earn $52,640 or less; 10% of workers earn $143,020 or more.

### Career Opportunities

AA Minimum: Social Services Assistant, Psychiatric Technician, Teacher's Aide, Home-Care Aide, Family/Victim Advocate, Research Assistant, Correctional Officer, Community Service Manager, Administrative Service Manager. **BA Minimum:** Substance Abuse Counselor, Career/Employment Counselor, Activities Director, Probation/Parole Officer, Teacher, Social Worker, Public Relations Specialist, Family Intervention Specialist, Qualified Intellectual Disability Professional, Human Resources Specialist. **MA Minimum:** Licensed Professional Counselor, Licensed Psychological Associate, Sociology Professor, Clinical Sociologist, Counseling Sociologist, Experimental/Research Sociologist, Sports Sociologist.
<table>
<thead>
<tr>
<th>First Semester - 15 SCH</th>
<th>Second Semester - 15 SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 1301 - Introduction to Computing</td>
<td>CRIJ 1306 - Court Systems &amp; Practices</td>
</tr>
<tr>
<td>CRIJ 1301 - Introduction to Criminal Justice</td>
<td>ENGL 1302 - Composition II</td>
</tr>
<tr>
<td>SOCI 1301 - Introduction to Sociology</td>
<td>HIST 1301 - United States History I</td>
</tr>
<tr>
<td>ENGL 1301 - Composition I</td>
<td>CRIJ 1310 - Fundamentals of Criminal Law</td>
</tr>
<tr>
<td>SPCH 1321 - Business and Professional Communication</td>
<td>MATH 1342 - Elementary Statistical Methods</td>
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<tr>
<td>Third Semester - 15 SCH</td>
<td>Fourth Semester - 15 SCH</td>
</tr>
<tr>
<td>PHYS 1303 - Stars and Galaxies</td>
<td>PHYS 1304 - Solar System</td>
</tr>
<tr>
<td>CRIJ 2313 - Correctional Systems &amp; Practices</td>
<td>COMM 1307 - Introduction to Mass Communications</td>
</tr>
<tr>
<td>PSYC 2301 - General Psychology</td>
<td>DRAM 1310 - Introduction to Theater</td>
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<tr>
<td>GOVT 2305 - Federal Government</td>
<td>CRIJ 2328 - Police Systems and Practices</td>
</tr>
<tr>
<td>HIST 1302 - United States History II</td>
<td>GOVT 2306 - Texas Government</td>
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</tbody>
</table>

### Marketable Skills

- Legal Knowledge - Comprehension of legal processes; analysis of the rights of different parties in the criminal justice system.
- Social Responsibility - Comprehension of moral and social responsibilities to the public; understanding the rights of victims, suspects, and offenders.
- Writing - Be able to write in a clear and comprehensible manner to the reader.
- Social Skills - Effectively use body language, verbal and non-verbal communication skills, and personal appearance to communicate and interact with others.
- Analytical Reasoning - Collect and evaluate data from a variety of data sources to inform the investigations, strategies, and policy decisions of criminal justice organizations in a way that will make the data usable for problem-solving.

### Program Outcomes

- Students will demonstrate proficiency in the core criminal justice areas by describing the functions and roles of each area.
- Students will be able to model professional behaviors and skills in relation to the ethics and professionalism expected within the criminal justice system.
- Students will be able to identify, analyze, compare and contrast the philosophy and function of the role of law enforcement in American society.
- Students will be able to provide a comprehensive view of criminal justice that include criminal procedures, penal laws, policy, and procedure of the system.

### Transfer Path/Requirements

A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M Commerce.

### Expected Salary

**Texas wage data:** workers on average earn $64,970; 10% of workers earn $42,970 or less; 10% of workers earn $89,120 or more. **US wage data:** workers on average earn $65,540; 10% of workers earn $38,420 or less; 10% of workers earn $109,040 or more.

### Career Opportunities

**AS Minimum:** State Police; Police Officer; Sheriff Deputy; Constable; Justice of the Peace; Correctional Officer; Private Investigator; Paralegal; Security Officer; Bailiff; Police Dispatcher; Loss Prevention; Fraud Investigator; Latent Print Technician; Bail Agent; Fire Investigator; Court Administrator; School Resource Officer. **BS Minimum:** Federal Law Enforcement Agent; Game Warden; Probation Officer; Parole Officer; Conflict Resolution Mediator; Criminal Investigator; Crime Scene Technician; Crime Lab Analyst; Victim Advocate; Crime Reporter; Public Information Officer; Case Manager.
First Semester - 16 SCH

ENGL 1301 - Composition I
HIST 1301 - United States History I
EDUC 1301 - Introduction to the Teaching Profession
EDUC/PSYC 1300 - Learning Framework
GEOL 1401 - Earth Sciences for Non-Science Majors I

Second Semester - 12 SCH

ENGL 1302 - Composition II
HIST 1302 - United States History II
MATH 1314 - College Algebra
SPCH 1315 - Public Speaking

Third Semester - 16 SCH

PSYC 2301 - General Psychology
GOVT 2305 - Federal Government
MATH 1350 - Fundamentals of Mathematics I
ARTS 1301 - Art Appreciation
BIOL 1408 - Biology for Non-Science Majors I

Fourth Semester - 16 SCH

EDUC 2301 - Introduction to Special Populations
GOVT 2306 - Texas Government
MATH 1351 - Fundamentals of Mathematics II
HIST 2321 - World Civilizations I
BIOL 1409 - Biology for Non-Science Majors II

Marketable Skills

• Instructing - Teaching others essential curriculum for skills development
• Communication - Verbal and written to convey information effectively
• Learning Strategies - Selecting and using training/instructional and procedures appropriate for the situation when teaching essential curriculum.
• Critical Thinking - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems to meet individual student needs.
• Monitoring - Monitoring/Assessing performance of instruction, students, or organizations to make improvements or take corrective action.
• Social Perceptiveness - Being aware of others’ reactions and understanding why they react as they do.

Program Outcomes

Students will be able to:
• Compose a Philosophy of Education and demonstrate knowledge and understanding of philosophical beliefs pertaining to teaching and learning.
• Compose a Reflection Paper that analyzes and evaluates the (16) hours of Field Observation Experience.
• Evaluate and justify a collection of resources and materials compiled into an electronic portfolio based on the competencies addressed in the State Board for Educator Certification Pedagogy and Professional Responsibilities.

Transfer Path/Requirements

• Student should refer to the catalog of the institution to which he/she plans to transfer for degree requirements.
• A student completing the Paris Junior College core curriculum is considered Core complete at Texas public universities.
• For the education (EC-6) major, TAMU-Texarkana requires students to take HIST 2311 or 2312 for the Language, Philosophy, and Culture credit.
• For the (EC-6) major, TAMU-T requires PHYS 1315 + Lab (Introduction to Physical Science) for their nonlife science credit.
• All education majors must take 12 hours of science, one nonlife and two life sciences.
• At most Texas public universities, EC-6 and 4-8 majors are required to take MATH 1351.

High School Endorsements

Public Service

Expected Salary

Texas wage data: workers on average earn $58,400; 10% of workers earn $43,730 or less; 10% of workers earn $74,230 or more.
US wage data: workers on average earn $62,870; 10% of workers earn $41,330 or less; 10% of workers earn $102,130 or more.

Career Opportunities

AAT Minimum: Teacher’s aide; Paraprofessional; Secretary; Child Care Teacher; College Tutor; Nanny; Administrative Assistant; Substitute Teacher. Bachelor’s Degree Minimum: Headstart Teacher; Elementary School Teacher; Middle School Teacher; High School Teacher; Band Director; Athletic Coach; Adult Basic Education Instructor; Developmental Education Instructor.
#### First Semester - 16 SCH

- **ENGL 1301 - Composition I**
- **HIST 1301 - United States History I**
- **EDUC 1301 - Introduction to the Teaching Profession**
- **EDUC/PSYC 1300 - Learning Framework**
- **GEOL 1401 - Earth Sciences for Non-Science Majors I**

#### Second Semester - 12 SCH

- **ENGL 1302 - Composition II**
- **HIST 1302 - United States History II**
- **MATH 1314 - College Algebra**
- **SPCH 1315 - Public Speaking**

#### Third Semester - 16 SCH

- **PSYC 2301 - General Psychology**
- **GOVT 2305 - Federal Government**
- **ARTS 1301 - Art Appreciation**
- **BIOL 1408 - Biology for Non-Science Majors I**
- **Content Area/Academic Discipline Course - 3 credits**

#### Fourth Semester - 16 SCH

- **EDUC 2301 - Introduction to Special Populations**
- **GOVT 2306 - Texas Government**
- **HIST 2321 - World Civilizations I**
- **CHEM 1411 - General Chemistry I**
- **Content Area/Academic Discipline Course - 3 credits**

### Marketable Skills

- Instructing - Teaching others essential curriculum for skills development
- Communication - Verbal and written to convey information effectively
- Learning Strategies - Selecting and using training/instructional and procedures appropriate for the situation when teaching essential curriculum.
- Critical Thinking - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems to meet individual student needs.
- Monitoring - Monitoring/Assessing performance of instruction, students, or organizations to make improvements or take corrective action.
- Social Perceptiveness - Being aware of others' reactions and understanding why they react as they do.

### Program Outcomes

- Students will be able to:
  - Compose a Philosophy of Education and demonstrate knowledge and understanding of philosophical beliefs pertaining to teaching and learning.
  - Compose a Reflection Paper that analyzes and evaluates the 16 hours of Field Observation Experience.
  - Evaluate and justify a collection of resources and materials compiled into an electronic portfolio based on the competencies addressed in the State Board for Educator Certification Pedagogy and Professional Responsibilities.

### Transfer Path/Requirements

- Students should refer to the catalog of the institution to which they plan to transfer for degree requirements.
- A student completing the Paris Junior College core curriculum is considered core complete at Texas public universities.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For Texas A&M-Texarkana, students must take HIST 2311 or HIST 2312 for the Language, Philosophy, and Culture credit.
- All education majors in Texas must take 12 hours of science, one nonlife and two life sciences.

### High School Endorsements

- Public Service

### Expected Salary

- **Texas wage data**: workers on average earn $58,400; 10% of workers earn $43,730 or less; 10% of workers earn $74,230 or more.  
- **US wage data**: workers on average earn $62,870; 10% of workers earn $41,330 or less; 10% of workers earn $102,130 or more.

### Career Opportunities

- **AAT Minimum**: Teacher’s aide; Paraprofessional; Secretary; Child Care Teacher; College Tutor; Nanny; Administrative Assistant; Substitute Teacher.  
- **Bachelor’s Degree Minimum**: Headstart Teacher; Elementary School Teacher; Middle School Teacher; High School Teacher; Band Director; Athletic Coach; Adult Basic Education Instructor; Developmental Education Instructor.
**Marketable Skills**

- Select and implement training, instructional methods and procedures that are appropriate for the situation when learning or teaching new ideas and tasks.
- Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.
- Determining how a system should work and how changes in conditions, operations and the environment will affect outcomes.
- Speaking to others to convey information effectively.
- Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Monitoring and assessing performance of yourself, other individuals or organizations to make improvements to take corrective action.
- Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- Communicating effectively in writing as appropriate for the needs of the audience.
- Considering the relative costs of actions and choosing the most appropriate.

**Program Outcomes**

- Demonstrate an applied understanding of the form and function of the human body.
- Identify and describe the factors that influence health, rehabilitation, and human movement.
- Evaluate programs and interventions related to health promotion, physical activity and the treatment of diseases.

**Transfer Path/Requirements**

For Texas A&M Commerce

- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the kinesiology major, students might transfer either to the Sport and Recreation Management B.S. or the Kinesiology and Sports Studies B.A./B.S. - All-Level Teacher Certification. The student should check the specific requirements of the degree they are seeking.

* Kinesiology requires PHED 2356 in the fourth semester; Public Health requires PHED 1346 in the fourth semester.

**First Semester - 16 SCH**

- EDUC/PSYC 1100 - Learning Framework
- ENGL 1301 - Composition I
- HIST 1301 - United States History I
- MATH 1342 - Elementary Statistical Methods
- MUSI 1306 - Music Appreciation
- PHED 1301 - Foundations of Kinesiology

**Second Semester - 15 SCH**

- COMM 1307 - Introduction to Mass Communications
- ENGL 1302 - Composition II
- HIST 1302 - United States History II
- PHED 1304 - Personal/Community Health
- PHED 1338 - Concepts of Physical Fitness

**Third Semester - 16 SCH**

- BIOL 2401 - Anatomy & Physiology I
- ECON 2302 - Principles of Microeconomics
- GOVT 2305 - Federal Government
- PHED 1306 - First Aid
- SPCH 1315 - Public Speaking

**Fourth Semester - 13 SCH**

- BIOL 2402 - Anatomy & Physiology II
- GOVT 2306 - Texas Government
- PHED 2356 - Care and Prevention of Athletic Injuries or PHED 1346 - Drug Use and Abuse*
- PSYC 2314 - Lifespan Growth and Development

*Semester Credit Hour

**High School Endorsements**

- Public Service

**Expected Salary**

**Texas wage data:** workers on average earn $64,100; 10% of workers earn $18,320 or less; 10% of workers earn $106,270 or more.  **US wage data:** workers on average earn $66,290; 10% of workers earn $33,140 or less; 10% of workers earn $130,580 or more.

**Career Opportunities**

**AS Minimum:** Exercise Trainers and Group Fitness Instructors; Respiration Therapist; Physical Therapist Aide.  **BS Minimum:** Athletic Administrator; Athletic Trainer; Athletics Coach; Sports Officials; Exercise Physiologist; Fitness and Wellness Coordinators.  **MS Minimum:** Physical Therapist; Recreational Therapist; Sports Management; College Coaching; Recreation and Fitness Studies Teachers (Postsecondary).
### Program Outcomes

- Demonstrate an applied understanding of the form and function of the human body.
- Identify and describe the factors that influence health, rehabilitation, and human movement.
- Evaluate programs and interventions related to health promotion, physical activity and the treatment of diseases.

### Transfer Path/Requirements

For Texas A&M Commerce
- A student completing the Paris Junior College curriculum is considered Core complete at Texas A&M Commerce.
- No more than 60-66 SCH from PJC will be applied to a bachelor degree at TAMU-Commerce. Another 60 or more must be completed at TAMU-Commerce.
- For the kinesiology major, students might transfer either to the Sport and Recreation Management B.S. or the Kinesiology and Sports Studies B.A./B.S.- All-Level Teacher Certification. The student should check the specific requirements of the degree they are seeking.

### Expected Salary

Texas wage data: workers on average earn $58,340; 10% of workers earn $30,830 or less; 10% of workers earn $84,790 or more.  
US wage data: workers on average earn $49,860; 10% of workers earn $32,980 or less; 10% of workers earn $75,810 or more.

### Career Opportunities

**AS Minimum**: Exercise Trainers and Group Fitness Instructors; Respiration Therapist; Physical Therapist Aide.  
**BS Minimum**: Athletic Administrator; Athletic Trainer; Athletics Coach; Sports Officiating; Exercise Physiologist; Fitness and Wellness Coordinators.  
**MS Minimum**: Physical Therapist; Recreational Therapist; Sports Management; College Coaching; Recreation and Fitness Studies Teachers (Postsecondary).