



Engineering

AS (60 SCH*)

*Semester Credit Hour

5/2024

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
COSM 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 interrelationships, 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.

High School Endorsements

STEM

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).