

# Engineering

## Engineering Degrees and Certificates

- 1
- Bachelor of Applied Science - Engineering Technology
- Associate in Applied Science - Engineering Technology

## Engineering Classes

### ENGR& 214: Engineering Statics

Principles of engineering statics including basic concepts, resultants, force-couple relationships, equilibrium diagrams, equilibrium analysis, three dimensional structures, two-dimensional frames, trusses, beams and friction.

**Credits** 5

**Weekly Contact Hours** 5

**Meets Degree Requirements For**  
General Elective

**Prerequisites**

MATH& 152 and PHYS& 222 or equivalent or Instructor Permission

### ENGR 102: Interpreting Engineering Graphics

The students will study the principles of technical drawing used in the fields of Engineering, Drafting, Machining, Welding, Industrial Technology, Digital Design and Architecture. Interpreting multi-view and orthographic drawings, reading blueprints, drawing symbols and related project documents are components of the course.

**Credits** 2

**Weekly Contact Hours** 2

**Meets Degree Requirements For**  
Restricted Elective

### ENGR 105: Computer-Aided Design (CAD)

This course provides familiarization with computer-aided drafting techniques using an interactive microcomputer CAD system. Students create, edit and store basic drawings using a tablet digitizer and/or screen menu consisting of geometric forms and alphanumeric characters. Laboratory included.

**Credits** 5

**Weekly Contact Hours** 7

**Meets Degree Requirements For**  
Restricted Elective

### ENGR 106: Computer Aided Design: Solid Modeling

Introduces Computer Assisted Design through parametric Solid Modeling: creating accurate three-dimensional objects and parts for use in engineering, machining and product design. Topics include part design, surfaces, arraying and patterning, reference geometry, dimensioning and tolerances, assemblies, mating features, and exporting technical drawings. Laboratory included.

**Credits** 4

**Weekly Contact Hours** 6

**Meets Degree Requirements For**  
Restricted Elective

## ENGR 197: Special Topics

Regular courses designed to deal with unique subjects or timely topics conducted by qualified faculty. May be repeated with different topics.

**Credits 1-5**  
**Weekly Contact Hours 5**  
**Meets Degree Requirements For**  
Restricted Elective

## ENGR 267: Introduction to Survey Techniques

Students will learn the foundations for field survey techniques with field labs using methods and tools such as a total station and leveling equipment. The course covers the Professional Land Survey System along with how to establish and adjust control and conduct field survey to produce a topographic map.

**Credits 5**  
**Weekly Contact Hours 6**  
**Meets Degree Requirements For**  
Restricted Elective