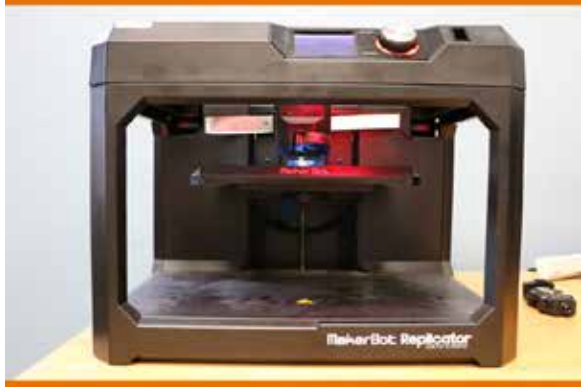
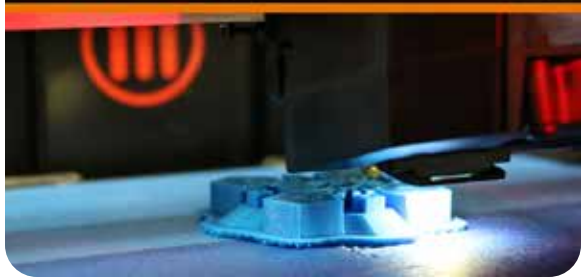
Why Engineering and Design Technology?

- *Students get hands-on experience, fieldwork, and build a model of their own designs using the latest software and technology.*
- *Students can work in different industries like Engineering, Architecture, Construction, and government locally or anywhere in the USA.*
- *There will always be a demand for design technology skills and graduates can work for small or large companies as well as be self-employed.*





Engineering and Design Technology

ENGINEERING AND DESIGN TECHNOLOGY PROGRAM
PO Box 6000
Roswell, NM 88202-6000

ENMU Roswell — The Community University

575.624.7335 roswell.enmu.edu/edt

Engineering and Design Technology

ENMU Roswell — Eastern New Mexico University

575.624.7335 roswell.enmu.edu/edt

Program Overview

The Engineering and Design program teaches students fundamental principles of technical drawing and building structures, including specification interpretation, dimensioning techniques, drafting calculations, and material estimation. By utilizing 2D and 3D computer aided software, students learn mechanical device design, fabrication, and prototyping. Students also gain experience in Civil Surveying and Geographic Information System analysis (GIS). These are valuable skills that are constantly in demand.

The Engineering and Design program offers three completion options:

1. Associate of Applied Science Degree
2. Certificate of Occupational Training
3. Certificate of Employability - Emphasis in:
   - Architecture
   - Surveying

Completion Options

Classes through ENMU-Roswell also prepare students planning to transfer to a four-year university to pursue a bachelor's degree in engineering and architecture. The A.A.S. Degree in Engineering and Design Technology transfers into a Bachelor of Applied Arts and Sciences (BAAS) Degree program at ENMU.

Associate of Applied Science - 60 cr. hours

See the current catalog for the complete degree plan. Course availability varies each semester.

ENGR 101 Introduction to Engineering	3
ENGR 111 Technical Drawing	3
ENGR 120 Architectural Modeling	1
ENGR 125 Fabrication and Design	1
ENGR 135 Introduction to GIS	3
ENGR 205 Principles of Engineering	3
ENGR 211 Introduction to CAD-Mechanical	3
ENGR 212 Residential Architectural CAD	3
ENGR 213 Civil/Survey CAD	3
ENGR 220 Building Structures	3
ENGR 222 Plane Surveying	3
ENGR 230 3-D Parametric CAD	3
ENGR 235 Advanced GIS	3
ENGR 240 Commercial Architectural CAD	3
ENGR 245 Structural CAD	3
ENGR 294 Engineering and Design Internship	3

Program Learning Outcomes

1. Read and accurately interpret 2-dimensional and 3-dimensional drawings and solid models. Apply reverse-engineering skills within architectural, civil, and mechanical drafting designs.
2. Demonstrate mastery of Computer Aided Design (CAD) software and its use in the production of accurate civil and architectural drawings and technical documentation.
3. Demonstrate mastery in the use of surveying equipment to collect and analyze data using CAD and Geographic information System (GIS) to produce accurate maps and data for civil design.
4. Effectively communicate design and design problems through speaking, writing, drawings and diagrams, utilizing appropriate software, digital media, and other communication modes.

Career Opportunities

The program prepares students for entry-level employment as Architectural and Mechanical Drafters, Mapping Technicians, Geodetic Surveyors, and GIS Technician within engineering, architectural, and construction firms that work with government and a variety of private industries like oil and gas, wind and solar, and agriculture.

ENGINEERING & DESIGN TECH. PROGRAM

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