

# Engineering Technology

Engineering technology graduates are problem solvers, creative thinkers and innovators. Their ability to apply engineering principles and concepts in specialized areas enables them to do many things, such as managing the construction of highways, buildings, or water treatment plants; enabling businesses to maximize efficiency through the use of computers; and designing and testing new products.

## Engineering Technology Studies

Engineering technology students receive an education in the practical applications of engineering principles. Theory and design give a basic foundation of the principals and then a major portion of time is spent learning the applications and skills required to design, build and test areas specific to the discipline. The curriculum includes mathematics, science, and applied engineering and computing courses. Students can specialize in civil, mechanical, information or electronic and computer engineering technology, with minors available in manufacturing, renewable energy and security technology.

Civil engineering technology students learn to implement current civil engineering practices in design, construction and project management. They take many of the same technical science courses as mechanical engineering technology students, such as fluids, thermodynamics and strength of materials. Civil technical specialty courses include properties of construction materials, blueprint reading, surveying, applied design of structures, highway technology, land development and infrastructure, hydraulics and construction management.

Areas of concentration for electronic and computer engineering technology students are applied circuits, electronics devices, computer hardware, computer application and systems software, programming, networking, digital systems and security.



Mechanical engineering technology students receive instruction in a diverse range of study, including the properties of materials, fluid flow, thermal energy, forces, objects in motion, mechanisms, manufacturing processes and robotics. Students learn how to design mechanical systems using drafting, design and analysis software.

## Research Highlight

Students pursuing the renewable energy technology minor are designing a variety of novel applications. One student project involved the design of a solar-powered well pump for livestock watering. In another project, students designed a solar-powered bus stop sign for the NMSU Aggie Transit system. The bus sign has a lit display box for bus schedules and a programmable LED message board powered entirely by solar energy.

## DID YOU KNOW?

All of the lecture-based classes in the College of Engineering at NMSU are taught by regular faculty members.