

Technology and Engineering Education, BS

Emphases: Technology and Engineering Education; Skilled and Technical Sciences Education

Department: School of Applied Sciences, Technology and Education

College: College of Agriculture and Applied Sciences

Overview

About This Degree

The degree in technology and engineering education prepares students to teach technology, engineering, or vocational subjects in middle schools, high school, or trade and technology education centers. The program provides hands-on learning opportunities for students to gain the technical expertise they need, and the curriculum in education helps them learn to be effective teachers.

Career Options

With a degree in engineering and technology education, students may pursue the following careers:

- Middle school teacher
- High school teacher
- Postsecondary teacher
- Industry trainer

[Career Services](#) provides counseling and information on hundreds of job and internship opportunities and even helps students apply and interview.

What it takes

Admissions Requirements

In addition to Utah State University's [admissions requirements](#), the engineering and technology education program has additional requirements:

- **Freshmen:** New freshmen admitted to USU in good standing qualify for admission.
- **Transfer Students:** Transfer students from other institutions and students transferring from other USU majors need a 2.75 total GPA for admission to this major.
- **STEP Requirements:** In order to be accepted into STEP, students must go through an application process, which includes the following:
 - Complete 60 semester credits with a minimum GPA of 2.75
 - Complete certain core courses (see department for more information)
 - Complete a speech and hearing test
 - Pass the Teacher Education Writing Exam
 - Provide an unofficial copy of your transcript
 - Pass a criminal background check (this should be done one semester before submitting the application)

International students have [additional admissions requirements](#).

Major Requirements

[Click here](#) to see course requirements for the **Bachelor of Science**.

Contact

Advising

All new USU students participate in a [New Student Orientation](#) program, where they receive detailed information

about major requirements, registering for classes, and other important advising information.

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Get Involved

Professional Organizations, Honor Societies, and Clubs

International Technology and Engineering Educators Association: ITEEA is the professional organization for technology, innovation, design, and engineering educators. Its mission is to promote technological literacy for all by supporting the teaching of technology and promoting the professionalism of those engaged in these pursuits. ITEEA strengthens the profession through leadership, professional development, membership services, publications, and classroom activities.

Technology and Engineering Education Club: The mission of the TEEC is to enhance the educational, professional, and social experiences for its members. The USU Technology Education Club provides career related lectures, seminars, and field trips for its members.

Labs, Centers, Research

With the second oldest [undergraduate research](#) program in the nation, USU offers students a wide range of opportunities to gain hands-on research experience. The [Undergraduate Research and Creative Opportunities](#) program allows students to apply for grants and receive funding. USU's [Honors Program](#) prepares students for excellent graduate programs by helping them build relationships with professors, participate in research projects, take smaller, more intensive classes, and develop leadership skills.

Communications Systems Laboratory: This lab allows students access to any communication materials they need, such as digital audio and video production equipment, computer workstations, and a sound booth.

Computer and Electronics Laboratory: Both the Digital and Analog Electronics Lab and the Computer Networking Lab combine to make up the Computer and Electronics Laboratory. The Digital and Analog Electronics Lab offers students PSpice and cadence PC-board development, signal generators, digital oscilloscopes, digital multimeters, DC power supplies, spectrum analyzers, and a PC board prototyping router. The Computer Networking Lab encompasses 16 computers, a fluke network analyzer, RF communication monitors, and wireless routers.

Engineering and Computer Graphics Laboratory: This lab offers 40 engineering graphics workstations, full autodesk CAD software, and other software, such as MS Office, MS Project, MS Viso, Matlab, Photoshop, and FAA Testing software. It also has printers, including a Designjet 1050C wide-format printer and a Designjet 30N graphics printer. A manual drafting facility with 36 stations is also available.

Manufacturing Systems Laboratory: This lab offers students the capability to work with a variety of polymers and metals. It has equipment for casting, molding, forming, grinding, polishing, automation, and controls, as well as industrial robotics, machine tools, materials joining. Students also have access to computer-aided design, computer-aided manufacturing, and computer-integrated manufacturing functions.

National Center for Engineering and Technology Education: NCETE is one of the 17 National Science Foundation-funded Centers for Learning and Teaching in the country and the only center addressing engineering and technology education. The ultimate goal of NCETE is to infuse engineering design, problem solving, and analytical skills into K-12 schools.

Project Development Laboratory: This laboratory has technical equipment, such as tensile test machining (structural stress analyzer 1000), an electronics assembly station, rapid prototyper (Z-Printer 310), robotics

development station (mindstorms, techniks, custom robotics), hydraulics development station, and six computers.

Wood-Based Manufacturing Systems Laboratory: The wood-based manufacturing systems lab offers students the capability to work with wood-based products. Students can use wood lathes, table saws, jointers, planers, sanders, wood-assembly equipment, and a paint booth.