

# TECHNOLOGY & ENGINEERING EDUCATION



There is currently a shortage of technology and engineering education teachers in many states, which means there are exceptional job opportunities for Technology & Engineering Education graduates. Make a difference with your career choice. Choose this major if you enjoy problem-solving, learning by doing, and inspiring others.

## DEGREES/MINOR

### BACHELOR OF SCIENCE IN EDUCATION (B.S.E.) TECHNOLOGY & ENGINEERING EDUCATION

The **Technology & Engineering Education** program is a teacher training program for individuals who desire to teach a broad range of courses in preK-12 technology and engineering education. The four-year program is comprised of general education courses to support a liberal arts foundation, technical courses to build content knowledge, and professional courses that immerse students in field experiences with preK-12 students, including a full-time student-teaching semester.

An **optional** Engineering Design Education concentration is also available to build deeper understanding and expertise for STEM (science, technology, engineering and math) education.

Graduates are eligible for Pennsylvania teacher certification in technology education, which enables them to teach all courses in this content area, such as computer-aided drafting and design (CADD), graphic communication, manufacturing and materials, STEM, engineering design, construction, energy and power, transportation, electronics, automation/robotics and much more. Many states have reciprocity with Pennsylvania, which generally enables graduates to apply for certification there once they have the PA certification.

### MINOR IN TECHNOLOGY & ENGINEERING EDUCATION

The minor in Technology & Engineering Education (18 credits) is designed for students majoring in other educator preparation programs (e.g., science, math, social studies, English, early childhood education) to provide them with a technical and pedagogical background in Technology & Engineering Education and STEM Education. This minor will help students prepare for the Praxis subject area specialty examination in technology education and make dual certification possible as better prepared teachers. Graduates with certifications in other areas could apply for certification in technology education in Pennsylvania and many other states as well. This is a great way for future teachers to broaden their skills and make themselves more marketable to school districts.



## TOP 3 REASONS TO CHOOSE TECHNOLOGY & ENGINEERING EDUCATION

1. Job prospects for technology and engineering teachers are exceptional. There are more positions offered than there are graduates to fill them.
2. Teachers make a difference. A good technology and engineering teacher can positively influence hundreds or thousands of students in a lifetime.
3. Technology and engineering teachers work in a creative and dynamic learning environment. There are abundant opportunities to solve problems, build solutions and inspire others.



## CLUBS AND ACTIVITIES

**Technology & Engineering Education Colleague Association at Millersville University (TEECA @ MU).** Members engage in a wide variety of social, professional, service and fundraising events. Members participate in the Eastern Regional TEECA Conference every November, plus another national conference at a different U.S. location each spring.

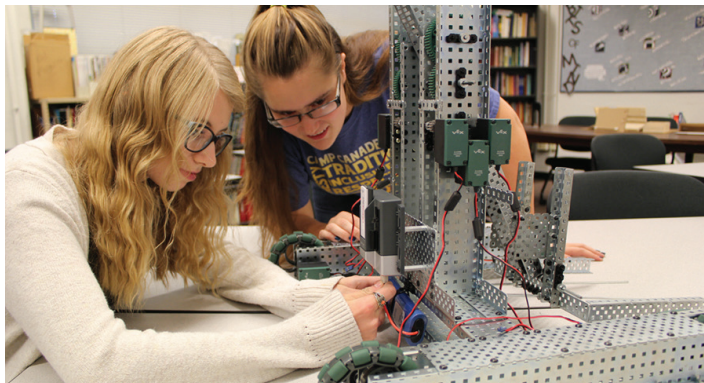
**Epsilon Pi Tau (EPT) – Beta Phi Chapter.** EPT is an international honor society for professions in technology, which includes Technology & Engineering Education. There are a number of benefits to membership, including opportunities for awards based on achievements or service.

**Other Organizations.** Students can choose to join other organizations in AEST, including the Society for Manufacturing Engineers (SME); Marauder Graphics Club; Construction Club; CADD Club; and Association of Technology, Management & Applied Engineering ('Ville Robotics Team).



## FACILITIES

Technology & Engineering Education students have the advantage of taking hands-on classes in more than 10 different laboratories in Osburn Hall, including graphic communication, materials/production, energy and power, electronics, automation, CADD and others. There is also an integrative STEM lab, innovation lab and seminar classroom where teacher candidates engage in design, problem-solving and teaching-methods courses.



## EXPERIENCE AND SUCCESS

Students majoring in Technology & Engineering Education have many opportunities to engage with students in preK-12 classrooms throughout our teacher preparation program. In addition to required field experiences and student teaching, some students choose to participate in other teaching-related programs through local community organizations and afterschool programming. These experiences help to build students' confidence and expertise in preparation for their teaching careers.



**Amanda Piergallini** (Class of 2018) teaches at Hatboro-Horsham High School (Pennsylvania). She teaches a range of classes such as Drafting & CAD, Architecture, and Engineering & Design. Amanda enjoys getting her students involved in projects that push them to rethink the easiest answer. Her students are trying something new weekly or building upon previous skills, from product re-designs, to three-story houses, and to designing outdoor spaces. Additionally, she works with the theatre department and the FIRST robotics team at her school to engage with students beyond the school day and to implement technology and engineering skills in an activity-based setting. Amanda's advice to you is to not be afraid to try something new just because you are unsure if it will work. Part of engineering and designing is messing up; that's what makes design better! What you are doing does not have to be perfect every time, and accepting that now is going to allow you to grow so much more as a person – in your classes and in your interests. Amanda says: "The Technology & Engineering Education program at MU introduced me to so many people to build on skills with, grow with and learn new content areas. Upon graduation, you will have a support system, network and more opportunities than you would have otherwise!"

### FOR INFORMATION, CONTACT:

**Department of Applied Engineering, Safety & Technology**

P.O. Box 1002 • Millersville, PA 17551

AEST@millersville.edu | 717-871-7237

AEST News Blog | [blogs.millersville.edu/aest](http://blogs.millersville.edu/aest)