

# DIVISION OF ENGINEERING TECHNOLOGY

The Division of Engineering Technology is comprised of multiple undergraduate and graduate degree programs with a wide range of major areas. Six programs are housed within the Division: Construction Engineering Technology, Electrical Engineering Technology, Fire and Emergency Management Administration, Fire Protection and Safety Engineering Technology, Mechanical Engineering Technology and Mechatronics and Robotics. We offer four ABET-accredited baccalaureate degrees, four undergraduate minors, three master's degrees and one doctor of philosophy degree.

## Curricula

Our undergraduate curricula focus on hands-on learning and real-world applications. Most Engineering Technology faculty members have extensive industrial experience, and our graduates are ready to be productive with little or no additional training. Typical job titles of our graduates include design engineer, application engineer, manufacturing engineer, field engineer, fire protection engineer, safety engineer, industrial hygienist, plant manager, project manager, estimator, and superintendent.

The Construction Engineering Technology (CET) program produces graduates with either a building or a heavy/highway focus. Students experience two internships providing them the opportunity to connect the classroom knowledge with field experiences. CET graduates are highly sought after by the construction industry, and the job placement rate is 100%.

The Fire Protection and Safety Engineering Technology (FPSET) program has a long and rich history serving as the first baccalaureate ABET accredited FPSET program and still one of only a few in the nation. FPSET graduates are highly sought after by companies in a variety of industries looking to reduce fire and safety losses. Students have an assortment of career choices and flexibility due to the diversity of education the program provides.

The Electrical Engineering Technology (EET) curriculum is based on rigorous math and science courses, and its major courses are taught to be applicable to solve 21st-century challenges in electronics and computer technology. The EET program is laboratory-oriented in applied electrical engineering using up-to-date information and practices to solve specific technical problems.

The Mechanical Engineering Technology (MET) curriculum is similar to the Mechanical Engineering (MAE) curriculum for the first two years, but the upper-level major courses are taught with a greater emphasis on application to engineering practice. Multiple upper-division MET courses are popular among engineering undergraduate and graduate students who find them directly applicable for job search and thesis/dissertation research.

The Mechatronics and Robotics (MERO) curriculum is the newest addition to the Division. It aims to produce engineers who understand, design, manufacture, and program electro-mechanical systems and robots. Students take a combination of mechanical and electrical classes along with specialized classes that incorporate both topics.

Minor degree choices are available in four areas. The Construction Minor, the Emergency Management Minor, and the Safety and Exposure Sciences Minor are open to students from all majors in the university.

The Mechatronics Minor is mainly for those whose major is electrical engineering, mechanical engineering, EET, or MET.

We offer graduate degree options including Ph.D. and M.S. in Fire and Emergency Management Administration, MSET with an option in Fire Safety and Explosion Protection, and MSET with an option in Mechatronics and Robotics.

The MS in Fire and Emergency Management Administration is a specialized degree designed to provide an educational foundation for those who are currently serving or aspire to serve as managers or administrators in the fire service, emergency management, emergency medical services, law enforcement, or homeland security in the public, private, or nonprofit sectors. The PhD in Fire and Emergency Management Administration is designed to produce proficient and active research scholars. It emphasizes preparing talented individuals for faculty careers at major research-oriented institutions, but we also welcome applicants whose career interests may lean toward non-academic settings or academic institutions that stress teaching.

The MS in Engineering Technology with an emphasis on Fire Safety and Explosion Protection is intended for individuals pursuing a career in engineering or the science underlying fire protection and safety. The courses are set up for both the needs of on campus students as well as working professionals with all classes being available both in-person and online.

The MS in Engineering Technology with an emphasis on Mechatronics and Robotics is a specialized degree developed in response to the increasing demand for mechatronics professionals. It is designed as a combination of the Electrical Engineering Technology and Mechanical Engineering Technology programs. The courses are offered both in-person and online.

## Bachelor of Science in Engineering Technology Degree Programs

Construction Engineering Technology, 124 hours  
 Electrical Engineering Technology, 120 hours  
 Fire Protection and Safety Engineering Technology, 125 hours  
 Mechanical Engineering Technology, 120 hours  
 Mechatronics and Robotics, 122 hours

## Master of Science in Engineering Technology Degree Programs

Fire Safety and Explosion Protection, 30 or 33 hours  
 Mechatronics and Robotics 30 hours

## Master of Science Degree Programs

Fire and Emergency Management Administration, 33 hours

## Doctorate of Philosophy Degree Programs

Fire and Emergency Management Administration, 60 hours beyond the master's degree.

## Accreditation

Our CET, EET, FPSET and MET undergraduate programs are accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

## Transfer Students

We provide students from 2-year degree institutions excellent opportunities to obtain a bachelor's degree in about four semesters at OSU. Transfer maps are available for students at community colleges and also engineering schools.

**Associate Professor of Professional Practice:** Leslie Stockel, MS, CSP  
**Assistant Professors of Professional Practice:** Paul Christian, MS, CPC  
**Teaching Assistant Professor:** Timothy Wilson, MS, CSP  
**Teaching Associate:** Laura Emerson, MS

## Academic Areas

- Construction Engineering Technology (<http://catalog.okstate.edu/engineering-architecture-technology/construction-engineering-technology/>)
- Electrical Engineering Technology (<http://catalog.okstate.edu/engineering-architecture-technology/electrical-engineering-technology/>)
- Fire Emergency Management Program (<http://catalog.okstate.edu/engineering-architecture-technology/fire-emergency-management-program/>)
- Fire Protection and Safety Engineering Technology (<http://catalog.okstate.edu/engineering-architecture-technology/fire-protection-safety-engineering-technology/>)
- Mechanical Engineering Technology (<http://catalog.okstate.edu/engineering-architecture-technology/mechanical-engineering-technology/>)
- Mechatronics and Robotics (<http://catalog.okstate.edu/engineering-architecture-technology/mechatronics-robotics/>)

## Minors

- Construction (CNST), Minor (<http://catalog.okstate.edu/engineering-architecture-technology/engineering-technology/construction-minor/>)
- Mechatronic Engineering Technology for EET Students (EETM), Minor (<http://catalog.okstate.edu/engineering-architecture-technology/engineering-technology/mechatronic-engineering-technology-eet-students-minor/>)
- Mechatronic Engineering Technology for MET Students (METM), Minor (<http://catalog.okstate.edu/engineering-architecture-technology/engineering-technology/mechatronic-engineering-technology-met-students-minor/>)

## Faculty

Chulho Yang, PhD, PE—**Professor and Department Head**

**Assistant Dean of Engineering Extension and Professor of Professional Practice:** Ed Kirtley, MS

**Professor and MERO Program Coordinator:** Amanda Oliveira Barros, PhD

**Professor and CET Program Coordinator:** Heather Yates, EdD, CPC

**Associate Professor and EET Program Coordinator:** Imad Abouzahr, PhD, PE

**Associate Professor and MET Program Coordinator:** Aaron Alexander, PhD

**Associate Professor and FPSET Program Coordinator:** Virginia Charter, PhD, PE

**Associate Professor and FSEP Graduate Advisor:** Bryan Hoskins, PhD, PE

**Associate Professor and FEMP Program Coordinator:** Haley Murphy, PhD

**Associate Professors:** Robert Agnew, PhD, CSP, CIH; Warren L. Lewis, MS; Rachel Mosier, PhD, PE; Brian Norton, MS, PE; Haejun Park, PhD; Hitesh Vora, PhD

**Assistant Professors:** Chen Chen, PhD; Marllon "Dan" Cook, PhD; Amy Lewis, PhD; Xiangyu (Dale) Li, PhD; Tony McAleavy, PhD; Ellis Nuckolls, MS, PE; Amanda Oliveira, PhD; Diana Rodriguez-Coca, PhD; Lingfeng Tao, PhD; Soojin Yoon, PhD