



Department of Applied Engineering and Technology
School of Applied Sciences and Technology
College of Business & Technology (2017-18)

Technology (A.A.S.)

Applied Engineering Concentration

APPLIED ENGINEERING TECHNOLOGY AT EKU

Manufacturing industries generally employ Applied Engineering Technicians, although the skills developed through the degree program can apply to a variety of technology-based organizations. Applied Engineering Technicians work under professional direction to effectively use personnel, materials, and machines to produce a quality, cost-effective product or service. They may prepare machinery and equipment layouts, plan workflows, conduct statistical production and quality studies, and analyze production costs. Students completing the two-year Associate of Applied Science Degree in Technology with the Applied Engineering concentration at Eastern Kentucky University, should they decide to continue their education in the future, can apply all of the credits earned toward the four-year Bachelor of Science Degree in Applied Engineering Management. The program is accredited by the Association of Technology, Management, and Applied Engineering (ATMAE).



APPLIED ENGINEERING TECHNICIAN CAREERS

Because there is a nation-wide shortage of qualified people, U.S. industries are seeking professional men and women who have a broad foundation of both technical and personal skills, including those in communication, critical-thinking, math, statistics, and science. The versatility of this degree allows graduates to contribute to many organizations. For example, they may work in supply chain management to help businesses minimize inventory costs, in quality assurance to help businesses keep their customers satisfied, and in production to help control costs and maximize efficiencies. The *Occupational Outlook Handbook, 2016-17 Edition**, lists the 2016 median Technician's salary for Industrial Engineering Technicians (a similar occupation) as \$53,330 a year. (<http://www.bls.gov/ooh/architecture-and-engineering/industrial-engineering-technicians.htm> visited July 14, 2017).

DEPARTMENT FACILITIES, FACULTY AND STUDENT ORGANIZATIONS

The Department is located in the Ralph W. Whalin Technology Complex which includes approximately 100,000 square feet of classroom and laboratory space. Laboratories housed in the Whalin Complex include aviation, automation, electronics, computer aided drafting (CAD), metrology, industrial materials, metallic processes, construction estimating, fluid power and computer applications.

The facilities are located in the central portion of campus and close to the library, other classroom buildings and dormitories. Faculty in the department have diverse academic and career backgrounds. They are experienced, enthusiastic, and devoted to providing students the skills necessary to succeed.

For More Information

Department of Applied Engineering and Technology
307 Whalin Complex
Eastern Kentucky University
521 Lancaster Avenue
Richmond, KY 40475-3102
859-622-3232
<http://technology.eku.edu>



Suggested Curriculum Guide for AAS in Technology, Applied Engineering concentration

Freshman (1st Semester) 16 hrs

- E-2 MAT 114 College Algebra or higher
- AEM 195 Computer Aided Drafting
- AEM 201 Metallic Material Processes
- STA 270 Applied Statistics I **or** STA 215 Intro to Statistical Reasoning
- E-1A Written Communication (3 hr)
- BTO 100 Orientation (1 hr)

Sophomore (1st Semester) 15 hrs

- AEM 330 Materials Testing and Metrology
- AEM 308 Methods of Lean Operations
- EET 251 Electricity & Electronics
- E-5B ECO 230 Principles of Microeconomics
- E-1C Oral Communication (3 hr)

Freshman (2nd Semester) 15 hrs

- MAT 120 Trigonometry
- E-3A or 3B Arts or Humanities (3 hr)
- AEM 371 Hydraulics and Pneumatics **or** AEM 390 Advanced Computer Aided Design
- E-1B Written Communication (3 hr)
- AEM 202 Introduction to Quality

Sophomore (2nd Semester) 14 hrs

- AEM 301 Non-Metallic Material Processes **or** AEM 392 Computer Aided Machine Drawing
- AEM 332 Process Control and Auditing
- AEM 336 Reliability and Sampling **or** AEM 352 Automated Technology Devices **or** AEM 383 CAD/CAM Integration
- E-4 CHE 101/101L Intro. Chemistry (3 hr) with Lab (1 hr) **or** CHE 111/111L General Chemistry (3 hr) with Lab (1 hr) **or** PHY 131 College Physics I (5 hr)
- Free Elective(s) (0-1 hr)

Students must take an assessment examination before graduation.

University Requirements

Student Success Seminar (BTO 100) 1 hr

General Education Requirements 18 hr

Communication (GE Elements 1A, 1B, and 1C); MAT 114 or higher (GE Element 2); Arts or Humanities (GE Element 3A or 3B); ECO 230 (GE Element 5B).

Concentration Requirements 40-41 hr

Applied Engineering concentration
 CHE 101/101L(4) or CHE 111/111L(4) or PHY131(5); EET 251; AEM 195, 201, 202, 308, 330, 332, 336 or 352 or 383, 371 or 390, 301 or 392; MAT 120; STA 215 or 270.

Free Electives 0-1 hr

Exit Exam 0 hr

Students must take an assessment examination before graduation: AEM 367 (AE), CR only, no hours.

Total Curriculum Requirements **60 hr**