



Department of Applied Engineering and Technology
School of Applied Sciences and Technology
College of Business & Technology (2020-21)

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, April 12, 2019*, lists the 2018 median Technician's salary for Industrial Engineering Technicians (a similar occupation) as \$55,460 a year. (<http://www.bls.gov/ooh/architecture-and-engineering/industrial-engineering-technicians.htm> visited June 12, 2019).

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

- BTO 100** Orientation (1 hr)
- AEM 195** Computer Aided Drafting
- AEM 201** Metallic Material Processes
- E-2 MAT 112A&B** Algebra or higher (MAT 114, 120, 122, 211, 234)
- STA 215** Intro to Statistical Reasoning
- E-1A** Written Communication (3 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 120** Economic Reasoning and Issues or **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)
- Elective** (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 120 or 230 (GE Element 5B).

Concentration Requirements 40 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.

Free Electives 1 hr

Exit Exam 0 hr

Students must take an assessment examination before graduation: AEM 367 or 467 (AE), CR only, no hours.

Total Curriculum Requirements**60 hr**

Note: Fall only, Spring only