

MECHANICAL ENGINEERING

Mechanical engineering touches nearly every aspect of our lives. Mechanical engineers apply their expertise to the design, development and production of everything from rocket propulsion systems to appliances. Some examples of products and processes developed by mechanical engineers include engines and control systems for automobiles and aircraft; electric power generation plants; lifesaving medical devices; robots and consumer products such as air conditioners; refrigerators and washing machines.

PURSuing MECHANICAL ENGINEERING AT UK

The Department of Mechanical and Aerospace Engineering has a proud heritage at the University of Kentucky. The first dean of the College of Engineering, F. Paul Anderson, was an early pioneer in the field of air conditioning, and mechanical engineering graduate Margaret Ingels was the first woman to receive a graduate engineering degree in the United States. Our graduates include two former governors of Kentucky and three members of the National Academy of Engineering.

CAREER PROSPECTS IN MECHANICAL ENGINEERING

Mechanical engineers work in virtually every industry you can think of: aerospace, automobile, manufacturing, industrial equipment design, consulting firms and government agencies. Our graduates have secured employment with GE Appliances, GE Aviation, Cummins, Toyota, Lexmark, Trane, Link-Belt, Belcan, NASA, SpaceX and more.

UNDERGRADUATE RESEARCH IN MECHANICAL ENGINEERING

The department has research thrusts in autonomous systems, sustainable manufacturing, clean energy, bioengineering, aerospace engineering, and in industrial applications such as noise control. Students can participate in research as part of an elective course or as a research assistant in the many world-class laboratories. Undergraduate students can also participate in extra-curricular design projects, including the Formula SAE race team or the Solar Car team, both of which design, build and race vehicles against other universities from around the world.

CO-OPS

UK provides opportunities to co-op with many companies. Students can co-op during the fall, spring or summer terms. Those who complete three co-op rotations will receive formal recognition upon graduation with a special cord (beginning with May '23 graduates). Students work with the co-op director and their academic advisor to determine the best timing for their co-op experiences.

PROGRAM FACTS

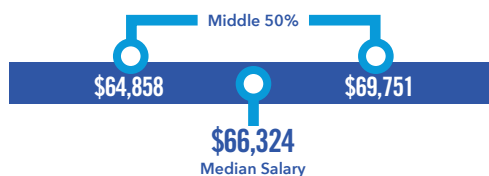
Enrollment: 789

Common Minors: Biomedical Engineering, Computer Science, Mathematics and Physics

Student Organizations: ASME, Formula Kentucky, Pi Tau Sigma, SAE, Solar Car, SpaceLex, Tau Beta Pi and UK Energy Club

GRADUATE STARTING SALARIES

Median full-time starting salary info for 2021 new college graduates
National Association of Colleges and Employers - Summer 2022



INDUSTRY SECTORS:

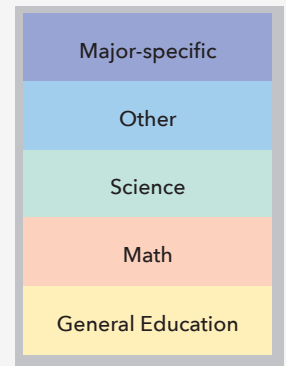
- Aerospace
- Automotive
- Biomedical
- Energy
- Manufacturing
- Robotics and Controls

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Curriculum Synopsis

This list is a synopsis of classes that a student will take to pursue a degree in mechanical engineering. As part of the mechanical engineering curriculum, students must complete the pre-engineering requirements, major requirements and general education coursework, called UK Core.

Note: This synopsis represents one of several paths to a mechanical engineering degree. Consult the departmental website for details on specific paths.



YEAR ONE	YEAR TWO	YEAR THREE	YEAR FOUR
Engineering Exploration I and II	Computer-Aided Engineering Graphics	Elements of Heat Transfer	Capstone Design I and II
Fundamentals of Engineering Computing	Dynamics	Engineering Experimentation I	Design of Control Systems
Chemistry I	Engineering Thermodynamics I	Fluid Mechanics	Mechanical Design or Applied CFD
Physics I and Lab	Introduction to Materials and Manufacturing Processes	Introduction to Mechanical Systems	Engineering Experimentation II
Calculus I and II	Statics	Mechanical Design	Three Technical Electives
Composition and Communication I and II	Chemistry II	Mechanics of Deformable Solids	UK Core Courses
UK Core Course	Physics II and Lab	Engineering Thermodynamics II	
	Calculus III and IV	Electrical Circuits and Electronics	
	Guided Elective	Technical Writing	
	UK Core Courses	Math Elective	

TAKING CO-OPS?
When you participate in semester co-ops, the above schedule can adjust.

Detailed Curriculum Information: enr.uky.edu/explore/mechanical-engineering

The University of Kentucky's mechanical engineering program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Revised August 2022. Information subject to change. For the most up-to-date information on the UK College of Engineering, visit www.enr.uky.edu.