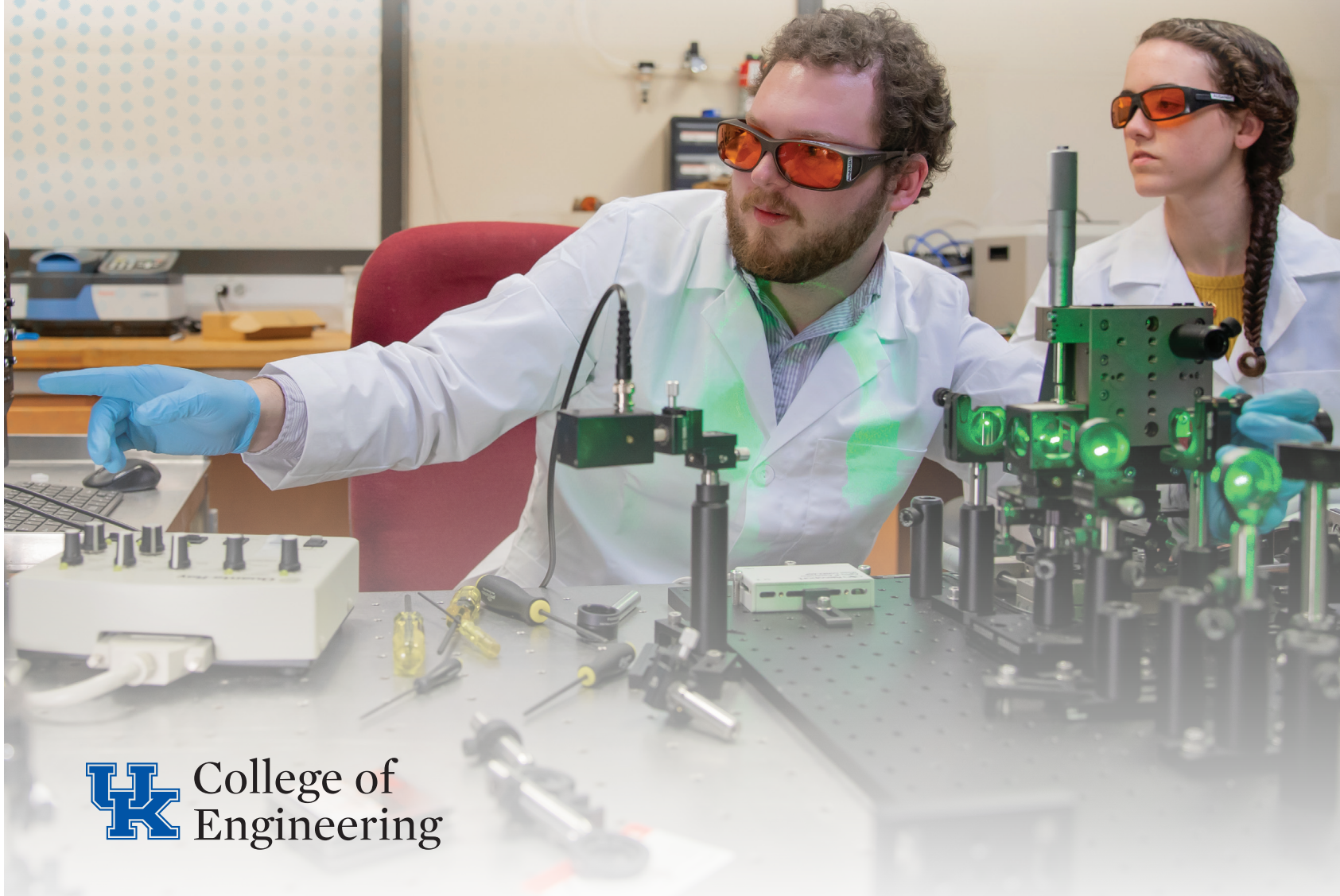


MECHANICAL ENGINEERING



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.

FOR MORE INFORMATION, VISIT THESE WEBSITES:

Mechanical Engineering: www.engr.uky.edu/me

College of Engineering: www.engr.uky.edu

Visit Engineering: www.engr.uky.edu/visit

University of Kentucky: www.uky.edu

Admissions: www.uky.edu/admissions

Scholarships: www.uky.edu/financialaid/scholarships

MECHANICAL ENGINEERING CURRICULUM SAMPLE

This is a sample list of classes 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 sample represents one of several paths to a mechanical engineering degree. Consult the departmental website for details on specific paths.

Freshman Year

Engineering Exploration I and II	3
Fundamentals of Engineering Computing	2
Calculus I and II	8
Composition & Communication I and II	6
Chemistry I and Physics I and Lab	9
UK Core Course	3
Total hours	31

Sophomore Year

Calculus III and IV	7
Physics II and Lab	5
Chemistry II	3
Computer Aided Engineering Graphics	3
Statics	3
Intro to Materials and Manufacturing Processes	3
Thermodynamics I	3
Dynamics	3
UK Core Courses	6
Total hours	36

Junior Year

Mechanics of Deformable Solids	3
Electrical Circuits and Electronics	3
Fluid Mechanics	3
Intro to Mechanical Systems	3
Technical Writing	3
Engineering Experimentation I	3
Thermodynamics II	3
Elements of Heat Transfer	3
Mechanical Design	3
Math Elective	3
Total hours	30

Senior Year

Capstone Design I and II	6
Engineering Experimentation II	3
Design of Control Systems	3
Design with Finite Element Methods	3
Technical Electives	9
UK Core Courses	6
Total hours	30

PURSUING MECHANICAL ENGINEERING AT UK

The Department of Mechanical 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 UK 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

UK provides ample opportunities for undergraduate students to participate in research with our award-winning faculty. 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. Projects funded by NASA Kentucky, housed in Mechanical Engineering, provide opportunities for space systems research and internships at NASA. We welcome you to explore our faculty research pages on our website to discover the wide range of opportunities for our students.

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

Revised August 2020. Information subject to change. For the most up-to-date information on the UK College of Engineering, visit www.engr.uky.edu.