From aerospace to manufacturing and aviation to acoustics, a degree in Mechanical Engineering can prepare you for an exciting career in a variety of industries. Examples of products and processes developed by mechanical engineers include engines and control systems for automobiles and aircraft, electric power generation, lifesaving medical devices, robots, and high-tech consumer products such as low-energy lighting, HVAC, refrigeration, and household appliances. Mechanical engineers use mathematics, computers, sophisticated modeling and analysis to solve problems associated with energy usage, propulsion, power generation, sound and vibration, machinery design, and manufacturing. In short, mechanical engineers play a part in designing and building the mechanical devices and systems that are essential to our everyday lives.

### Freshman Year

**FALL SEMESTER**

- **EGR 101** - ENGINEERING EXPLORATION I - 1
- **EGR 102** - FUNDAMENTALS OF ENGINEERING COMPUTING - 2
- Choose **CHE 105** or **PHY 231** - 4
- **PHY 241** - GENERAL UNIVERSITY PHYSICS LABORATORY - 1
- **UK Core - Comp. & Comm. I** - 3
- **MA 113** - CALCULUS I - 4

**SPRING SEMESTER**

- **EGR 103** - ENGINEERING EXPLORATION II - 2
- **UK Core - Comp. & Comm. II** - 3
- **MA 114** - CALCULUS II - 4
- Choose **CHE 105** or **PHY 231** - 4
- **UK Core - Social Sciences** - 3

**TOTAL HOURS: 16**

Total Freshman Hours: 31

### Sophomore Year

**FALL SEMESTER**

- **PHY 232** - GENERAL UNIVERSITY PHYSICS - 4
- **PHY 242** - GENERAL UNIVERSITY PHYSICS LABORATORY - 1
- **MA 213** - CALCULUS III - 4
- Choose **CHE 107** or **UK Core - Humanities** - 3
- **ME 205** - COMPUTER AIDED ENGINEERING GRAPHICS - 3
- **EM 221** - STATICS - 3

**SPRING SEMESTER**

- **ME 220** - ENGINEERING THERMODYNAMICS I - 3
- **ME 251** - INTRODUCTION TO MATERIALS AND MANUFACTURING PROCESSES - 3
- **MA 214** - CALCULUS IV - 3
- **EM 313** - DYNAMICS - 3
- Choose **CHE 107** or **UK Core - Humanities** - 3
- **UK Core - Statistical Inferential Reason** - 3

**TOTAL HOURS: 18**

Total Sophomore Hours: 36

### Junior Year

**FALL SEMESTER**

- **EM 302** - MECHANICS OF DEFORMABLE SOLIDS - 3
- **EE 305** - ELECTRICAL CIRCUITS AND ELECTRONICS - 3

**SPRING SEMESTER**

- **ME 310** - ENGINEERING EXPERIMENTATION I - 3
- **ME 321** - ENGINEERING THERMODYNAMICS II - 3
ME 330 - FLUID MECHANICS - 3  
ME 340 - INTRODUCTION TO MECHANICAL SYSTEMS - 3  
WRD 204 - TECHNICAL WRITING - 3  
**TOTAL HOURS: 15**

ME 325 - ELEMENTS OF HEAT TRANSFER - 3  
ME 344 - MECHANICAL DESIGN - 3  
Math Elective - 3  
**TOTAL HOURS: 15**

**TOTAL JUNIOR HOURS: 30**

### Senior Year

#### FALL SEMESTER

- ME 411 - ME CAPSTONE DESIGN I - 3  
- ME 311 - ENGINEERING EXPERIMENTATION II - 3  
- ME 440 - DESIGN OF CONTROL SYSTEMS - 3  
- ME 501 - MECHANICAL DESIGN WITH FINITE ELEMENT METHODS - 3  
- Technical Electives - 3  
**TOTAL HOURS: 15**

#### SPRING SEMESTER

- ME 412 - ME CAPSTONE DESIGN II - 3  
- Technical Electives - 3  
- Technical Electives - 3  
- Supportive Elective - 3  
- UK Core - Global Dynamics - 3  
- UK Core - Community, Culture and Citizen - 3  
**TOTAL HOURS: 18**

**TOTAL SENIOR HOURS: 33**

**Total Minimum hours Required for Degree: 130 hours**

---

University of Kentucky is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate, baccalaureate, masters, and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or online at [www.sacscoc.org](http://www.sacscoc.org) for questions about the accreditation of University of Kentucky.

Current UK students: Please login to [http://myUK.uky.edu](http://myUK.uky.edu) to access your personalized major template and degree audit via the Graduation Planning System (GPS). This major template is the curriculum requirements for completion of the degree program only and is not a personalized audit based on your completed coursework. This major template does not reflect entrance requirements for selective majors. Please consult with the college to learn more about admission to this major.