Department of Mechanical Engineering

Mechanical engineering is the most versatile engineering program. Mechanical engineers pursue careers in a wide variety of industries, research laboratories, educational activities and government agencies. Mechanical engineering graduates can become involved in research, design and management in industries such as aerospace, automotive, energy conservation, precision engineering, railroad, heavy machinery, manufacturing, food/forest products, textiles, paper, consumer appliances, robotics, nuclear and fossil power plants, electronics, computer automation, agriculture, heating and air-conditioning, construction, transportation and mining. A significant number of mechanical engineering graduates use mechanical engineering as the foundation for careers in business administration, law, medicine and other professions. Many graduates are also accepted for advanced study in mechanical engineering, biomedical engineering, medicine, law, business administration and dentistry.

- Majors
  - Mechanical Engineering (BSME)

Special Programs

Mechanical Engineering Program

The Mechanical Engineering Honors Program is part of the College of Engineering Honors Programs and is designed to provide an enhanced academic experience for highly-motivated, high-achieving students. The program develops problem-solving, critical-thinking and communication skills through a mentored experience-based activity. Research is particularly encouraged. Students completing the ME Honors Program will be awarded a certificate and recognized at the Honors Day ceremony in the student's senior year. Details can be found online at me.eng.ua.edu under the undergraduate program link.

University Scholars Program

The department participates in the University Scholars Program where a student who meets qualifications as an honors student can apply to graduate school after the junior year and pursue the BS and MS simultaneously.

Undergraduate Research Program

The Supplemental Undergraduate Research Experience (SURE) program provides our students with an enhanced educational experience. This is achieved by teaming the student with a faculty mentor who will work with and guide the student as he/she completes a structured research project. Participation in the SURE Program will:

- sharpen the student’s critical thinking skills
- enhance the student’s ability to apply engineering analysis techniques
- improve the student’s ability to communicate technical information
- increase the student’s confidence in his or her engineering skills
- provide exposure to the graduate-level research environment

Details can be found online at me.eng.ua.edu under the undergraduate program link.

Cooperative Education

Many mechanical engineering students participate in the cooperative education program. This is an academic program where students alternate work terms in an engineering environment in industry with full-time terms of course work. Co-op can greatly enhance your academic experience and employment opportunities.

Interim Department Head and Director, Center for Advanced Vehicle Technology

- Midkiff, Jr., K. Clark

Professor and Robert F. Barfield Endowed Chair

- Agrawal, Ajay K.

Professors

- Balasubramanian, Bharat, Executive Director, Center for Advanced Vehicle Technology
- Chou, Y. Kevin
- Guo, Yuebin
- Shepard, Steve
- Woodbury, Keith A.

Associate Professors

- Ashford, Marcus
- Fonseca, Daniel
- Puzinauskas, Paul
- Schreiber, Will
- Shen, Xiangrong
- Todd, Beth A.
- Williams, Keith

Assistant Professor

- Allison, Paul G.
- Bittle, Joshua A.
- Jordon, Brian
- MacPhee, David W.
- Mahmoodi, Seyed Nima
- O’Neil, Zheng
- Uddi, Mruthunjaya ‘Jay’
- Volkov, Alexey
- Yoon, Hwan-Sik

Professors Emeriti

- Barfield, Robert F.
- Doughty, Julian O.
- Evces, Charles R.
- Harrisberger, Lee
- Kavanaugh, Steve
- Parker, Joey K.
- Taylor, Robert P

ME

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Hours

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INTRODUCTION TO MECHANICAL ENGINEERING

An introduction to the discipline of mechanical engineering and the role of the mechanical engineer, including both mechanical and thermal/fluid stems. Focus is on learning about the discipline through a series of student hands-on activities. Credit will not be given for this course for students who have passed ME 215.

Prerequisite(s): MATH 112 or MATH 113 or MATH 115 or MATH 125 or MATH 126 or MATH 145 or MATH 146 or MATH 227 or MATH 238.

Prerequisite(s) with concurrency: MATH 112 or MATH 113 or MATH 115 or MATH 125 or MATH 126 or MATH 145 or MATH 146 or MATH 227 or MATH 238

View All Courses

Faculty

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