

# Department of Aerospace Engineering and Mechanics

As one might guess from the name, the department of aerospace engineering and mechanics is also home to faculty members with expertise in engineering science & mechanics. The discipline of engineering mechanics focuses on the underlying physical principles responsible for the fundamental behavior fluid and solid materials exhibit. Such an understanding is critical to the development of cutting-edge technology. At the undergraduate level, students are exposed to engineering mechanics via courses in statics, dynamics, mechanics of materials and fluid mechanics. The material covered in these courses represents the foundation on which a strong engineering education is built. Most engineering disciplines require students to take several engineering mechanics courses in preparation for future study in their chosen professional area.

The undergraduate curriculum in the department of aerospace engineering and mechanics leads to a bachelor of science in aerospace engineering (BSAE) degree and provides a background in the basic sciences, engineering sciences, humanities, applied analysis and design. Graduates with a suitable academic record are also prepared to pursue advanced degrees in aerospace engineering, engineering science and mechanics, other related engineering/technical fields of study and professional areas such as law and medicine.

- Majors
  - Aerospace Engineering (BS)
  - Aerospace Engineering and Mechanics Honors Program
- Minors
  - Aerospace Engineering

## University Scholars Program

The University Scholars Program allows gifted and highly motivated undergraduate students the opportunity to work simultaneously on a bachelor's and master's degree.

## Eligibility Requirements

**Phase I:** Contingent upon completion of 61 semester hours of study and with a grade point average of at least a 3.3, students are admitted to Phase I at the beginning of their junior year or recommendation of the AEM Department. During their junior year, students will take courses in their major field to prepare them for the work of Phase II.

**Phase II:** On completion of at least 91 hours (typically at the end of the junior year), a GPA of 3.3 or above, and recommendation by the AEM department, students may apply for and be accepted for admission to the Graduate School. Upon admission to the Graduate School, students will begin a program of study leading to the master's degree as approved by the AEM Department and the dean of the Graduate School. Students accepted into the program may receive dual credit for up to six hours of graduate (500-level and above) credit. Seniors are allowed to take up to nine hours of graduate credit.

For more information, contact the AEM Undergraduate Program Coordinator, Dr. Thomas Zeiler at 205.348.7305 or tzeiler@eng.ua.edu.

## Department Head

- Baker, John

## William D. Jordan Chair Professor

- Roy, Samit

## Professors

- Barkey, Mark E.
- Karr, Charles L.

## Associate Professors

- Cheng, Gary
- Haque, Anwarul
- Hubner, James Paul
- Lang, Amy W.
- Olcmen, Semih
- Sharif, Muhammad Ali Rob
- Whitaker, Kevin W.

## Assistant Professors

- Branam, Richard
- O'Neill, Charles
- Mulani, Sameer

- Shen, Jinwei
- Su, Weihua
- Unnikrishnan, Vinu

## Professors Emeriti

- Gambrell, Samuel, Jr.
- Jackson, John E., Jr.
- Jones, Stanley E.

## Adjunct Instructors

- Cooper, Steve
- Highsmith, Alton

## AEM

120

Hours

4

Aerospace Science For Educators

Students develop meaningful understanding and use of engineering and science knowledge and critical-thinking skills and come to appreciate engineering and science as part of the daily life of a scientifically literate professional.

AEM

121

Hours

1

Introduction to Aerospace Engineering I

To survey aerospace history, discuss pertinent topics and introduce basic concepts that promote an understanding of aerospace engineering and the profession.

Prerequisite(s) with concurrency: MATH 125 and MATH 145

View All Courses

## Faculty

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