# MASTER OF SCIENCE IN MECHANICAL ENGINEERING

The Woodruff School has a challenging graduate program that encompasses advanced study and research leading to the degree of Master of Science in Mechanical Engineering for qualified graduates with backgrounds in engineering, mechanics, mathematics, physical sciences, and life sciences. The graduate coursework is flexible, but the program of study must meet the Woodruff School's requirements of breadth, depth, and level. Graduate degrees in mechanical engineering can be completed through a combination of studies at Georgia Tech-Lorraine, Joint Program with Stuttgart (see Master of Science with a major in Mechanical Engineering (Undesignated)), via video course offerings, or by attending classes at the Atlanta campus.

#### ME: Graduate Website

The Master of Science degree in Mechanical Engineering (M.S.M.E.) has the following 30 minimum course credit-hour requirements. Only 6 credits at the 4000 level are permitted, the remaining credits must be 6000 level or above. All course work in the Coherent Major and Minor Areas must be from the College of Computing, College of Science, and/or College of Engineering. The minor will not appear on transcripts or degree documentation. Candidates for Master's degree must earn and maintain a graduate grade-point average of at least 3.0. Below are the requirements for the non-thesis and thesis option.

#### **Non-Thesis Option**

**Major Area (21 hours)** Must be in a coherent subject area appropriate to Mechanical Engineering or related combinations. Up to 6 credit hours of Special Problems courses of focused research under a supervision of a faculty member is allowed towards the 30 credit hour of the program.

**Minor Area (6 hours)** The coherent minor area must be distinctly different from the major area. Note: ME 6753, ME 6789, and ME 6799 may only be used to satisfy the minor. COA 8685, COA 8833 (with title Computational Simulation of Building Design), MGT 6165 and BC 6650 may be included in the minor. ME 6753 and BC 6650 may not be counted together in the minor. Only ME 4405 or ME 6705 can count towards the degree, but not both.

Math Area (3 hours) Only courses from the School of Mathematics fulfill the mathematics requirement.

### **Thesis Option**

The Thesis Option involves working with a faculty member on a project in a wide range of research topics being investigated by Woodruff School faculty members. This will give hands-on experience in working with a faculty mentor; the opportunity to work in a laboratory or a research environment; and the chance to perform theoretical and experimental work. These events will foster the career interests and expand the selection of possible employers. In some cases, a student will receive a graduate research assistantship, which includes a stipend and a tuition waiver. The time to graduation depends on the thesis project, advisor, and the work ethic.

**Major Area (21 hours)** This area will consist of <u>12 hours</u> of coursework in a coherent subject area appropriate to Mechanical Engineering or related combinations and <u>9 hours</u> of MS thesis hours.

**Minor Area (6 hours)** The coherent minor area must be distinctly different from the major area. Note: ME 6753, ME 6789, and ME 6799 may only be used to satisfy the minor. COA 8685, COA 8833 (with title Computational Simulation of Building Design), MGT 6165 and BC 6650 may be included in the minor. ME 6753 and BC 6650 may not be counted together in the minor. Only ME 4405 or ME 6705 can count towards the degree, but not both.

Math Area (3 hours) Only courses from the School of Mathematics fulfill the mathematics requirement.

## The BS/MS Program

The Woodruff School offers a BS/MS program for those students who demonstrate an interest in and ability for additional education beyond the BS degree.

- Students must apply after earning 30 credit hours and are encouraged to apply before 75 earned credit hours, including transfer and AP credit hours.
- Students must have received a grade in COE 2001, Statics, before they apply.
- Students must complete a minimum of 12-24 credit hours at Georgia Tech, including degree applicable STEM classes.
- Students have shown appropriate progress towards their degree program.
- Obtained a grade point average (GPA) of 3.5 or higher based on classes taken at Georgia Tech. Transfer classes are not included.
- For students applying after earning 75 credit hours: All parts of the application must be received before the withdrawal deadline of the first semester you take ME 3057 (ME students) or NRE 4350 (NRE students). If any parts of the application are received after this time, students must apply to the MS program through the regular process.

Participants in the BS/MS Program in the Woodruff School can obtain a master's degree in mechanical engineering, nuclear engineering, medical physics, or in Georgia Tech's interdisciplinary bioengineering graduate program. There are two options to consider. Non-thesis (30 hours of coursework) or non-thesis (21 hours of course plus 9 hours of thesis).

**BS/MS** Information