

GRADUATE STUDY IN MECHANICAL ENGINEERING

The graduate program in mechanical engineering offers advanced study and research in the areas of acoustics and dynamics; automation and mechatronics; bioengineering; computer-aided engineering and design; fluid mechanics; heat transfer, combustion, and energy systems; manufacturing; mechanics of materials; microelectromechanical systems; and tribology. The graduate programs lead to the degrees of

- Master of Science in Mechanical Engineering,
- Master of Science,
- Master of Science in Bioengineering,
- Master of Science in Paper Science and Engineering, and
- Doctor of Philosophy for qualified graduates having backgrounds in engineering, mechanics, mathematics, the physical sciences, or the biological sciences.

The master's degree requires a minimum of thirty approved credit hours. Students may elect to earn nine of these hours by writing a thesis, or they may earn all credit toward the degree through coursework. Six hours of credit for graduate courses taken as an undergraduate at Georgia Tech and used for credit toward the BS ME may be included in the MS program of study if the student graduated with an undergraduate grade-point average of at least 3.5. Students must earn a graduate grade-point average of at least 3.0 and satisfy all remaining requirements to be certified for the master's degree.

Candidates for the Doctor of Philosophy degree must earn a graduate grade-point average of at least 3.3. Students may obtain additional information about the programs by viewing the Woodruff School Handbook for Graduate Students. Every student enrolled must consult this source of information with respect to special rules and degree requirements.

The graduate program in nuclear and radiological engineering/medical physics leads to the degrees of

- Master of Science in Nuclear Engineering,
- Master of Science in Medical Physics,
- Master of Science, and
- Doctor of Philosophy.

In nuclear and radiological engineering, students with a bachelor's degree in engineering pursue the Master of Science in Nuclear Engineering degree, while students with a Bachelor of Science degree in other fields enroll for the Master of Science degree. Depending on the career objectives of the student, the Woodruff School may encourage a thesis as part of the Master of Science program. Nuclear and radiological engineering students must earn a graduate grade-point average of at least 3.0 and satisfy all remaining requirements to be certified for the master's degree.

The doctoral program is designed with great latitude to capitalize on variations in experience and interests of individual students. Candidates for the Doctor of Philosophy degree must earn a graduate grade-point average of at least 3.3.

Master's Degrees

- Master of Science in Bioengineering
- Master of Science in Mechanical Engineering
- Master of Science in Medical Physics
- Master of Science in Nuclear Engineering
- Master of Science in Robotics
- Master of Science - Undesignated

Doctoral Degrees

- Doctor of Philosophy with a Major in Bioengineering
- Doctor of Philosophy with a Major in Mechanical Engineering
- Doctor of Philosophy with a Major in Nuclear Engineering
- Doctor of Philosophy with a Major in Nuclear Engineering - Medical Physics Option
- Doctor of Philosophy with a Major in Nuclear Engineering - Nuclear Enterprise Management Option
- Doctor of Philosophy with a Major in Robotics

Educational Objectives

The educational objectives of the doctoral programs in the Woodruff School are:

- to prepare students for successful careers in industry and/or academia and to promote and instill an ethic for lifelong learning;
- to educate students in methods of advanced analysis, including the mathematical, computational, and experimental skills appropriate for professionals to use when solving problems;
- to provide a substantial depth of knowledge in a particular field or subfield of study that allows the student to be recognized as an expert;
- to provide a breadth of knowledge in a minor field of study that fosters an awareness of and skill in interdisciplinary approaches to problem solving;
- to develop the skills pertinent to the research process, including the students' ability to formulate problems, to synthesize and integrate information, to work collaboratively, to communicate effectively, and to publish the results of their research; and
- to promote a sense of scholarship, leadership, and service among our graduates.

The educational objectives of the master's degree programs in the Woodruff School are:

- to prepare students for successful careers in industry and to promote and instill an ethic for lifelong learning;
- to educate students in methods of advanced analysis appropriate for professionals to use when solving problems;
- to provide a depth of knowledge in a particular field of study that allows the student to apply innovative techniques to solve problems;
- to provide a breadth of knowledge that fosters an awareness of and skill in interdisciplinary approaches to problem solving; and
- to develop the skills pertinent to the research process, including the students' ability to formulate problems, to synthesize and integrate information, to work collaboratively, to communicate effectively, and to publish the results of their research (MS thesis students).

The M.S. in Medical Physics and the Ph.D. in Nuclear and Radiological Engineering-Medical Physics Option programs are accredited by the

Commission on Accreditation of Medical Physics Educational Programs,
CAMPEP, www.campep.org/campeplstgrad.asp.