

The George W. Woodruff School of Mechanical Engineering Georgia Institute of Technology Strategic Plan

April 2005

Introduction

The Strategic Plan of the Woodruff School supports the Strategic Plans of the Georgia Institute of Technology (www.gatech.edu/president/strategic-plan.html) and the College of Engineering (www.coe.gatech.edu/strategic/). The objectives and action items in the Plan are intended to be reviewed and updated annually by the Chair of the Woodruff School working with the School's Faculty Advisory Committee and with appropriate input from the entire faculty and staff. Thus, this plan represents a living document that will be used in guiding the Woodruff School into the future.

Vision Statement

The Vision of the Woodruff School is

To provide the best comprehensive education in the School's disciplinary areas of responsibility, within an environment that fosters discovery and innovation, and to be so recognized."*

Mission Statement

The Mission of the Woodruff School is

- to educate those who will pioneer the advancement of knowledge and be the future leaders of industry, academia, and government;
- to conduct basic and applied research in mechanical engineering, nuclear and radiological engineering, medical physics, and related interdisciplinary areas;
- to provide leadership in addressing emerging areas of technological and societal interest with a global perspective; and
- to provide service to the profession, to the State of Georgia, to the country, and to the development of engineering.

A critical focus of the education, research, and service programs within the School is to afford undergraduate and graduate students of diverse backgrounds every opportunity for achieving success in the mechanical engineering, nuclear and radiological engineering, and medical physics professions.

* mechanical engineering, nuclear and radiological engineering, medical physics, and interdisciplinary areas of bioengineering, and paper science and engineering.

Objectives and Actions

Objective 1. To develop the best engineering talent through a world-class educational program by:

1. Continuously monitoring and improving educational programs in mechanical engineering, nuclear and radiological engineering, and medical physics to prepare future leaders of industry, government, and academia.
2. Developing innovative techniques to enhance the education of undergraduate and graduate students, and encouraging cross-disciplinary studies.
3. Promoting and strengthening the five-year BS-MS degree program.
4. Providing support for faculty to develop new course materials and research programs in strategic or emerging fields.
5. Addressing the educational needs of the profession through the distance-learning programs.
6. Providing students with opportunities to study abroad.

Objective 2. Maintain a world-class and diverse faculty with an appreciation for the global nature of engineering by:

1. Identifying, recruiting, and retaining exceptional faculty, with special emphasis on increasing the numbers of women and minority faculty.
2. Providing competitive salaries and benefits for faculty, staff and graduate students, as well as competitive startup packages for new faculty.
3. Seeking the establishment of additional endowed Chairs.
4. Supporting the expansion of the Georgia Tech Foundation Faculty Development Program.
5. Establishing classroom teaching assignments that are competitive with peer institutions.
6. Increasing faculty participation in international programs.
7. Encouraging and supporting faculty mentoring.

Objective 3. Support research and entrepreneurship that (a) expands the frontiers of knowledge in engineering and technology (b) acts as a catalyst for economic development and helps create an enriched, more prosperous, sustainable society by:

1. Maintaining and nourishing a culture that values basic and applied research.
2. Promoting collaborative and cross-disciplinary research.
3. Continuing to identify and pursue new research opportunities.
4. Recruiting faculty in critical aspects of emerging areas and ongoing core research areas.
5. Periodically holding faculty research retreats.
6. Encouraging entrepreneurial activities, corporate interaction, and economic development.
7. Promoting the dual-degree Masters programs offered jointly by the Woodruff School and the College of Management, and supporting the activities of the Center for Entrepreneurship.
8. Promoting entrepreneurship, leadership, and other related aspects of professional development in Woodruff School curricula, especially in senior-design and elective courses.