

## **MISSION of the MECHANICAL ENGINEERING DEPARTMENT**

The Mechanical Engineering Department provides a program of professional study grounded in engineering fundamentals and arts and sciences augmented by the development of interpersonal skills, experiential learning, and an appreciation of life-long learning. Graduates are prepared to apply their knowledge to society's needs and help shape the future.

The ABET 2009-2010 Criteria for Accrediting Engineering Programs defines Program Outcomes as follows:

Program Outcomes - Program outcomes are narrower statements that describe what students are expected to know and be able to do by the time of graduation. These relate to the skills, knowledge, and behaviors that students acquire in their matriculation through the program.

The Program Outcomes (PO) help to direct and measure the success of the Mechanical Engineering Program in accomplishing its mission. Review of the Program Outcomes is an integral part of the annual assessment process.

### **Program Outcomes (PO)**

Upon successful completion of the Mechanical Engineering Program, graduates will: 1. be able to design and conduct experiments using modern laboratory equipment including data acquisition hardware and software, and evaluate experimental results. 2. be knowledgeable about current manufacturing processes, machine tool capabilities and operation, and manufacturing process modeling techniques.

3. be able to design and develop a system, component, or process subject to realistic constraints. 4. be able to apply mathematics, science, and engineering principles to solve engineering problems. 5. have knowledge of and concern for ethical, safety, environmental, social, economic, and global issues faced by practicing engineers. 6. demonstrate service to campus and community and responsibility to self, profession, and society. 7. effectively function on an interdisciplinary team. 8. demonstrate the ability to communicate effectively with both technical and non-technical audiences. 9. have a broad-based education in humanities and general studies. 10. indicate they experienced a high-expectations, supportive environment that fosters personal and professional growth. 11. recognize the value of items such as arts, athletics, diversity, or music. 12. recognize the need for lifelong learning and have the ability to pursue it. 13. make informed decisions with regard to their professional career opportunities.