Purdue University Mission Statement

The mission of Purdue University is to serve the citizens of Indiana, the United States, and the world through discovery that expands the realm of knowledge, learning through dissemination and preservation of knowledge, and engagement through exchange of knowledge.

College of Engineering Mission Statement

We educate tomorrow's engineering leaders and innovators, create new knowledge, provide a nurturing environment for teamwork and lifelong learning, and impact the economic prosperity of our state, nation, and world through: Learning, Discovery, and Engagement.

School of Mechanical Engineering Program Educational Objectives (PEOs)

The Program Educational Objectives of the School of Mechanical Engineering are to matriculate graduates who conduct themselves in a responsible, professional and ethical manner (citizenship), and who upon the years following graduation, are committed to:

1. Discovery –
   - actively embracing leadership roles in the practice of engineering in industry and government organizations (including both traditional and emerging technical areas).
   - conducting research and development across disciplines (via graduate study or industry) to advance technology and foster innovation in order to compete successfully in the global economy.
   - applying their engineering problem solving skills to less-traditional career paths (e.g., law, medicine, business, start-up ventures, and public policy, etc.).

2. Learning –
   - being prepared for and actively participating in on-going professional development opportunities (conferences, workshops, short courses, graduate education, etc.).
   - updating and adapting their core knowledge and abilities to compete in the ever changing global enterprise.
   - developing new knowledge and skills to pursue new career opportunities.

3. Engagement –
   - serving as ambassadors for the engineering profession, helping others develop a passion for engineering.
   - exchanging and applying knowledge to create new opportunities that advance our society and solve a variety of technical and social problems.
   - advancing entrepreneurial ventures and fostering activities that support sustainable economic development that enhance the quality of life of people in the State, across the country, and around the world.
Program Outcomes for Purdue’s Mechanical Engineer of 2020

Vision: Purdue Engineers will be prepared for leadership roles in responding to the global, technological, economic, and societal challenges of the 21st century.

Strategy: We will provide educational experiences that develop students’ knowledge areas, abilities, and qualities to enable them to identify needs and construct effective solutions in an economically, socially, and culturally relevant manner.

Abilities
- B1. Leadership
- B2. Teamwork
- B3. Communication
- B4. Decision-making
- B5. Recognize & manage change
- B6. Work effectively in diverse & multicultural environments
- B7. Work effectively in the global engineering profession
- B8. Synthesize engineering, business, and societal perspectives

Knowledge Areas
- A2. Engineering fundamentals
- A3. Analytical skills
- A4. Experimental skills
- A5. Open-ended design & problem solving skills
- A6. Multidisciplinarity within and beyond engineering
- A7. Integration of analytical, prob solving, & design skills

Qualities
- C1. Innovative
- C2. Strong work ethic
- C3. Ethically responsible in a global, social, intellectual, and technological context
- C4. Adaptable in a changing environment
- C5. Entrepreneurial and intrapreneurial
- C6. Curious and persistent continuous learners

The Three Pillars of the Purdue Engineering Undergraduate Education