

## **ENGINEERING EDUCATION**

## Strategic Compass

From late 2007 to early 2009, the School of Engineering Education created its first Strategic Plan using a very iterative and inclusive process that engaged many stakeholders using the methodology of <u>Appreciative Inquiry</u>. This Strategic Plan was designed to operate from 2009-2014.

The essential elements of this plan - our vision, our mission, our four goals and our core values - have stood the test of time. So rather than embark on a whole new strategic planning process in 2014, the School of Engineering Education now uses these essential elements as our *Strategic Compass*, to guide all our initiatives.

The School of Engineering Education (ENE) **envisions** *a more inclusive, socially connected and scholarly engineering education*. This implies that we radically rethink the boundaries of engineering and the purpose of engineering education.

In pursuit of this vision, the **mission** of the School of Engineering Education is to *transform engineering education based on scholarship and research*.

## The **behaviors we value** and expect are:

- being inclusive, collegial, and mutually supportive;
- acting with integrity, courage and respect and building trust;
- achieving professional and personal satisfaction;
- being socially conscious in what we do and how we do it;
- thinking strategically and striving for excellence;
- being accountable.

Above all else, we seek to put **Students First** in all we do.

To achieve our mission we have four goals

1. **Empower our people**: Empower all members of the School (students; professional, administrative, and clerical staff; academic advisors; and faculty) to contribute to the success of our integrated, multifaceted mission and to be leaders, advocates, and change agents over their lifetime. Empowerment rests upon a shared understanding of the vision, mission, goals, priorities, and

capabilities of the School within the national and global landscape of engineering education. We are a continuous platform for members of engineering education community to engage, inform, and influence each other.

- 2. **Set the pace (in innovative programs)**: Offer a full suite of undergraduate and graduate programs that set the global standard in engineering education grounded in and contributing to cutting-edge scholarship and research. The transformation of engineering begins when we challenge the fundamental assumptions behind engineering education and strive to create engineering programs that:
  - a) Diversify engineering: Open up engineering to a more diverse range of people by making their first experience of engineering (from Pre-College to 16) the most rewarding it can be;
  - b) Embed creativity, innovation, and social responsibility: Create an understanding of the essential nature of engineering as creative and as contributing to a better world; and
  - c) Enrich the student experience: Determine what information, advice, preparation, pedagogies, and learning experiences attract, retain, and grow global engineers.
- 3. **Tackle the big research questions**: Create a world-renowned interdisciplinary research concentration at Purdue that addresses the big questions and challenges facing STEM education, with particular emphasis on engineering. Use our unique infrastructure and capability to be a pathfinder based on systematic research, policy development, and assessment. Reshape the research agenda by asking questions that challenge fundamental assumptions about engineering education across both the span of life and the different modes of participation in engineering. Influence the direction of and resource allocation for engineering education scholarship nationally and internationally.
- 4. Grow the (broader engineering education research and innovation) community: Identify and build strategic global partnerships and collaborations to elevate our research capabilities and those of the wider engineering education community, while simultaneously facilitating the sharing of experiences across the global community of engineering education scholars.

Each of the four goals is accomplished progressively via a rolling set of initiatives. At the ENE Advance each May, we review current initiatives and initiate new ones as needed and set specific priorities and targets over three horizons; one year, three years and five years.