Engineering Education, PhD

Department: Engineering Education Department
College: College of Engineering

Overview

About This Degree

Utah State University is one of three institutions in the United States that offers a PhD in the emerging discipline of engineering education. In this degree, emphasis is placed on the learning and teaching of engineering design. Engineering design is a decision-making process that uses results from basic sciences, mathematics, and the engineering sciences. This program produces doctoral students with proficiency in developing engineering design skills in others and expertise in research into how those skills are best learned and taught.

Career Options

Graduates typically enter into a higher education teaching and research setting at the university level. PhD graduates who wish to work in industry can work as technical trainers for industrial companies.

What it takes

Admissions Requirements

Applicants must have a background in engineering. There may be some prerequisite courses required to make up for deficiencies in the student's undergraduate transcript, which will be determined by the department.

Application Requirements:

- Complete the online application
- Pay the $55 application fee
- Score at or above the 40th percentile on in the GRE (the MAT is also accepted for MS applicants)
- Have a 3.0 or higher GPA on your last 60 semester or 90 quarter credits
- Provide transcripts of all college/university credits
- Provide three contacts for letters of recommendation

International students have additional admissions requirements.

Admissions Deadlines

The department has the following deadlines:

- Fall semester - February 20
- Spring semester - August 1
- Applications are accepted after these deadlines, but students will not be considered for financial assistance.
- International students are encouraged to apply much earlier to allow time for Visa applications.

Financial Assistance

The department is generally able to fund all full-time PhD students with teaching and research assistantships.

A variety of additional funding opportunities are available, including fellowships, scholarships, tuition awards, and travel support. Additionally, students may be eligible for subsidized health insurance through qualifying assistantships.

Program Requirements

Click here to see course requirements for the **Doctor of Philosophy**.

In addition to completion of the required professional core, students are encouraged to take additional supporting courses in other areas that will help them meet their own professional and career goals. For example, supporting courses outside the ETE program can be taken from other disciplines, such as agricultural systems technology and education and business.

PhD Qualifying Exams:

All PhD students are required to pass the PhD qualifying exams. They will be assessed using the following standard tools:

- A comprehensive written examination, which tests depth and breadth of knowledge in engineering and technology education and the student's area(s) of emphasis
- Successfully complete a written dissertation research proposal, present that proposal orally, and defend it during an oral examination
- The dissertation and oral dissertation defense, which determine the quality and scope of the research carried out, its originality, and whether the conclusions are consistent with the data produced and with other studies in the same general topic

Contact

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Get Involved

Professional Organizations, Honor Societies, and Clubs

American Society of Engineering Education: ASEEis a nonprofit organization committed to promoting education in engineering and engineering technology. ASEE's goal is to help engineering educators and students by its various goals for research, instruction, public service, etc.

International Technology Education Association: ITEA is a professional organization for educators in the fields of technology, innovation, design, and engineering. ITEA's goal is to support the profession by promoting professionalism in its various areas.

Labs, Centers, Research

Center for Engineering Education Research: The center will train the future leaders responsible for designing engineering course pedagogy, curriculum, and leveraged research to improve learning outcomes.

Rocky Mountain NASA Space Grant Consortium: RMNSGC is one of 52 National Space Grant Consortia in the United States. As a member of the consortium, USU has awarded more than 100 fellowships to students interested in aerospace-related education and careers. The majority of Space Grant student awards include a mentored research experience with university faculty and NASA scientists, engineers, and technologists.