

# Electrical Engineering

## Degrees Available at SIUE

- Master of Science in Electrical Engineering
- PhD in Engineering Science, a cooperative program with SIU Carbondale

## Combined Program

- Early Entry BS and MS in Electrical Engineering

## Electrical Engineering at SIUE

For the Master of Science in electrical engineering, the School of Engineering offers courses primarily in the areas of communication systems, computer systems, computer vision and image processing, power and control systems, IC design, and signal processing.

## Career Opportunities

Top-rated companies such as Boeing, Anheuser-Busch and many more hire SIUE graduates. Stand out by earning a graduate degree in electrical engineering. By building on an undergraduate foundation and conducting research alongside expert faculty at SIUE, students can enhance their skills in systems analysis and design, engineering design and development, applications design and technical sales, production and manufacturing, or field service and user training. SIUE faculty within the Department of Electrical and Computer Engineering are excellent professional resources – many are well respected consultants outside academia.

## Admission Requirements

- Graduate School application and \$40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Undergraduate grade point average of at least 2.75 (A=4.0) in engineering, mathematics, and physical science courses.
- International Applicants
- It is highly recommended that GRE scores are submitted.
- Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at [graduateadmissions@siue.edu](mailto:graduateadmissions@siue.edu).

Applicants should normally have a baccalaureate degree in electrical engineering from an ABET-accredited program. Applicants whose undergraduate studies were completed at institutions in countries other than the United States must have a baccalaureate degree in electrical engineering comparable to the United States bachelor's degree.

Applicants with degrees other than a baccalaureate degree in electrical engineering will be considered on an individual basis. Those with baccalaureate degrees in science and engineering, other than electrical engineering, may be admitted, subject to completion of appropriate undergraduate electrical engineering courses.

In exceptional cases, the graduate admissions committee may consider applicants who meet all Graduate School admission standards but who do not meet certain specified program admission requirements. The committee may consider other evidence that indicates high promise of the applicant's success in the program. Such supportive evidence may include extensive professional experience, published research, patents, or outstanding graduate-level work at another institution.

After admission and before enrolling in any courses, students are required to meet with the graduate program director who appoints, in consultation with the student, an advisory committee suited to each student's background and interests. The chair of the advisory committee serves as the student's academic adviser. Students are urged to file an approved plan of study with their academic adviser by the end of the first term of enrollment in the program.

Review the SIUE Admissions Policy for more information.



## Faculty

### George L. Engel, DSc

1990, Washington University

### Jon D. Klingensmith, PhD

2003, Case Western Reserve University

### Robert W. LeAnder, PhD

2003, University of Illinois at Chicago

### Andy G. Lozowski, PhD

1999, University of Louisville

### Brad Noble, DSc

2000, Washington University

### Ying Shang, PhD

2006, University of Notre Dame

### Scott E. Umbaugh, PhD

#### Graduate Program Director

1990, Missouri University of Science and Technology

### Yadong Wang, PhD

2010, University of Oklahoma

### Tim York, PhD

2014, Washington University

## Graduation Requirements

When all other program requirements are satisfied, the advisory committee will schedule an exit oral presentation or examination. The format of the presentation or examination will be determined by the student's advisory committee.

Review the graduation policy for more information.

## Curriculum

The program of study requires a minimum of 33 semester hours of graduate credit, at least 18 of which must be at the 500-level. Program core requirement specifies a minimum of one course from the following list:

- ECE 532, 539, 552, 562, 572, or 574

Up to six hours may be taken in out of department courses. The out of department courses must be approved by the advisor or be on the pre-approved list.

The out of department courses are typically from the School of Engineering or are math or physics courses.

Thesis and non-thesis options of study are available.

## Thesis option

The program consists of the core courses, elective courses, and thesis work in the amount of six credit hours. The student will be guided by the advisor with the assistance and concurrence of the advisory committee. Thesis work involves an intensive research effort and generally requires two semesters to complete.

## Non-thesis option

The program consists of the core courses, elective courses, and may include a research project. The research project is a component of any 500-level course approved by the advisory committee. The student will be guided by the advisor with the assistance and concurrence of the advisory committee.

## Contact Information

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