Electrical Engineering, MSE

Program Description

Degree Awarded: MSE Electrical Engineering

The electrical engineering faculty in the Ira A. Fulton Schools of Engineering offer a professional program leading to the MSE in electrical engineering.

Graduate courses and programs are offered in six areas of specialization:

- control systems (not an option for the online degree but available to on-campus students)
- electric power and energy systems
- electromagnetics, antennas and microwave circuits
- electronic and mixed-signal circuit design
- physical electronics and photonics
- signal processing and communications

A concurrent degree, the MBA/MSE in electrical engineering, is available as an online option. For more information, students should visit the following W. P. Carey School of Business website: https://wpcarey.asu.edu/mba-programs/online/concurrent-degrees.

At a Glance

- **College/School:** Ira A. Fulton Schools of Engineering
- **Location:** Tempe or Online

Concurrent Program Options

Students can choose to create their own concurrent degree combination to match their interests by working with their academic advisor during or after their first semester of study. Some concurrent
combinations are not possible due to high levels of overlap in curriculum; students should speak with their academic advisor for more details.

This degree is also offered as a concurrent program with the following:

- W. P. Carey MBA - Online Program
- Compare Programs

**Accelerated Program Options**

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an accelerated bachelor's and master's degree with:

- Earth and Space Exploration (Exploration Systems Design), BS
- Electrical Engineering, BSE
- Electrical Engineering (Electric Power and Energy Systems), BSE

Acceptance to the graduate program requires a separate application. During their junior year, eligible students are advised by their academic departments to apply.

**Degree Requirements**

30 credit hours and a written comprehensive exam

The master's degree in electrical engineering is a professional degree program requiring a minimum of 30 credit hours of coursework (a minimum of 10 classes) and a final comprehensive examination in the area of specialization. The examination is given each semester at the end of the sixth week of classes.

Requirements include:

- at least five EEE courses
- at least three EEE 500-level courses
- at least two courses outside the area of specialization
- at most one EEE 590 Reading and Conference or FSE course
- at most two 400-level courses

**Admission Requirements**

Applicants must fulfill the requirements of both the Graduate College and the Ira A. Fulton Schools of Engineering.
Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree in any field from a regionally accredited institution.

The decision to admit a student who has earned a bachelor's degree from a program accredited by ABET to a master's degree program in electrical engineering is based on a number of factors. A minimum requirement is an undergraduate GPA of 3.00 (scale is 4.00 = "A") in the student's last two years of undergraduate work.

All applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. statement of purpose
4. GRE scores (required if undergraduate program is not ABET-accredited)*
5. proof of English proficiency

*International and domestic applicants are exempt from taking the GRE if they have earned a degree from an ABET-accredited program (https://www.abet.org/) from a U.S. or overseas institution and if they meet the minimum GPA required for admission. Students who do not meet these requirements are required to provide GRE scores.

Additional Application Information
An applicant whose native language is not English must provide proof of English proficiency regardless of current residency.

International students seeking teaching assistantships must demonstrate proficiency in spoken English by scoring at least 26 on the speaking portion of the TOEFL iBT or 50 on the ASU-administered Speaking Proficiency English Assessment Kit.

Admission to electrical engineering graduate programs is highly competitive. Preferred applicants have an undergraduate degree in electrical engineering.

Applicants should see the program website for application deadlines.

Attend Online

ASU Online

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may view the program description and request more information here.

Program Learning Outcomes

Program learning outcomes identify what a student will learn or be able to do upon completion of their program. This program has the following program outcomes:
• Differentiate key concepts within electrical engineering and demonstrate their understanding of those concepts on the written comprehensive exam and demonstrate knowledge of ethical standards in a professional setting.
• Differentiate key concepts within electrical engineering and demonstrate their understanding of those concepts on the written comprehensive exam and demonstrate critical thinking skills in a professional setting.
• Understand and apply skills needed in order to select and secure professional employment in an electrical engineering related field by practicing the skills they have learned in their courses and showing they have the ability to work successfully within the electrical engineering field applying concepts from their academic experience, synthesizing knowledge, self-assessment on the student’s part, and teamwork/communication to address societal needs.

Career Opportunities

Graduates of the Master of Science program in electrical engineering have an advanced understanding of electrical engineering concepts and theories.

Career examples include:

• computer hardware engineer
• computer and information research scientist
• computer network architects
• director of engineering
• electrical engineer
• energy engineer

Contact Information

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