

# Electrical Engineering, MSE

ESEEMSE

## 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 W. P. Carey School of Business page on [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 plus 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. Students typically receive approval to pursue the accelerated master's during the junior year of their bachelor's degree program. Interested students can learn about eligibility requirements and [how to apply](#).

## Degree requirements

30 credit hours and a portfolio

The master's degree in electrical engineering is a professional degree program that requires a minimum of 30 credit hours of coursework (a minimum of 10 classes) and a portfolio based on attendance and review of seminars hosted by the School of Electrical, Computer and Energy Engineering.

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. proof of English proficiency

### **Additional Application Information**

An applicant whose native language is not English must provide proof of English proficiency regardless of their 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.

## **Tuition information**

When it comes to paying for higher education, everyone's situation is different. Students can learn about [ASU tuition and financial aid](#) options to find out which will work best for them.

## **Attend online**

### **ASU Online**

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may [view the program's ASU Online page](#) for program descriptions and to request more information.

## **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:

- Students are expected to 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.

- Students are expected to 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.
- Students will 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 and communication to address societal needs.

## **Career opportunities**

Graduates of the Master of Science in Engineering 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 architect
- director of engineering
- electrical engineer
- energy engineer

## **Contact information**

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