Semiconductor Processing (Graduate Certificate)

ESSCPRGRCT

Semiconductor processing is more important than ever before. Semiconductor chips are used in everything from mobile phones and household appliances to the communications networks that support autonomous vehicle fleets. As this field continues to advance, you can be at the forefront of semiconductor technology.

Program description

Degree awarded: Certificate Semiconductor Processing (Certificate)
This certificate program provides a series of courses in semiconductor processing, packaging and characterization that prepare students for careers in the industry or for graduate studies. Students select from a set of core courses and technical electives.

At a glance

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

Degree requirements

15 credit hours

Required Core (9 credit hours)
EEE 530 Advanced Silicon Processing (3)
IEE 572 Design Engineering Experiments (3)
MSE 550 Advanced Materials Characterization (3)

Electives or Research (6 credit hours)

Additional Curriculum Information
Students should see the academic unit for available elective and research coursework.

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 engineering or a related field from a regionally accredited institution.

Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program or a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.

Applicants are required to submit:

1. graduate admission application and application fee
2. official transcripts
3. professional resume
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 who need an F-1 or J-1 visa need to apply to and be accepted into a graduate degree program prior to being considered for the certificate program. International students residing in the U.S. on other types of visas must adhere to all Graduate College policies and procedures regarding admission to be considered for admission to this certificate program.

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:

- Demonstrate an understanding of key concepts of thin film processing in the field and how to apply those concepts in their culmination event (Portfolio).
- Demonstrate an understanding of key film materials characterization in the field and how to apply those concepts in their culmination event (portfolio).

Career opportunities

Professionals with a semiconductor processing certificate can find employment with semiconductor device manufacturers and semiconductor processing equipment manufacturers at all levels. The skills learned in this program prepare graduates for a career as a practicing engineer.

Career examples include:

- development engineer
- process engineer
- product engineer

Contact information

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