ADVANCED SEMICONDUCTOR DESIGN GRADUATE ACADEMIC CERTIFICATE

This certificate ensures graduate students have advanced knowledge in analog and digital integrated circuit analysis, design, simulation, and layout. This certificate is for graduate students in electrical and computer engineering.

All required coursework must be completed with a grade of B or better (O-10-b (https://catalog.uidaho.edu/general-requirements-academic-procedures/o-miscellaneous/)).

Code	Title	Hours
ECE 515	Analog Integrated Circuit Design	3
ECE 517	Mixed Signal IC Design	3
ECE 445	Introduction to VLSI Design	3
ECE 562	Quantum Mechanics for Electrical Engineers	3
Total Hours		**12**

Courses to total 12 credits for this certificate.

1. an ability to identify, formulate, and solve advanced semiconductor design problems by applying principles of engineering, science, and mathematics.
2. an ability to communicate effectively on topics related to advanced semiconductor design concepts and technologies with a range of audiences.
3. an ability to develop and conduct appropriate advanced semiconductor design experimentation, analyze and interpret data, and use engineering judgment to draw conclusions about semiconductor design.

These learning outcomes demonstrate that students who have completed a certificate in advanced semiconductor design have acquired the knowledge, skills, and abilities necessary to succeed in various fields of the advanced semiconductor design industry. The students are well-prepared to pursue further education or employment in the advanced semiconductor design field.