

MICROELECTRONICS FABRICATION UNDERGRADUATE ACADEMIC CERTIFICATE

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

Code	Title	Hours
ECE 465	Introduction to Microelectronics Fabrication	3
Select one of the following:		3
ECE 460	Semiconductor Devices	
PHYS 464	Solid State Physics	
Select two from the following (must be different from the core course 6-7 chosen):		
CHE 455	Surfaces and Colloids	
ECE 418	Introduction to Electronic Packaging	
ECE 460	Semiconductor Devices	
ME 458	Finite Element Applications in Engineering	
MSE 423	Corrosion	
MSE 432	Fundamentals of Thin Film Fabrication	
PHYS 411	Advanced Physics Lab	
PHYS 443	Optics	
PHYS 464	Solid State Physics	
STAT 301	Probability and Statistics	
Total Hours		12-13

Courses to total 12 credits for this certificate

Develop the ability to

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

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