

SEMICONDUCTOR MANUFACTURING - CERTIFICATE

The certificate program in Semiconductor Manufacturing is tailored to provide students with a comprehensive understanding of various facets of semiconductor manufacturing technologies. It will cover semiconductor devices with focuses on fundamental principles, models, fabrication, and testing of solid-state electronic devices, such as transistors. In addition, students will be introduced to crucial processes such as thin-film deposition, covering topics like lattice matching epitaxy and domain matching epitaxy. Furthermore, the program encompasses instruction on the design, fabrication, and integration of microelectromechanical devices, sensors, and systems. By completing this program, students will acquire a robust skill set and knowledge base essential for navigating the intricacies of modern semiconductor manufacturing.

Program Requirements

Code	Title	Semester Credit Hours
ECEN 671	Solid State Devices	3
ECEN 688	IC MEMS and Sensor Fabrication	4
Select two from the following:		6
ECEN 640	Thin Film Science and Technology	
ECEN 733	Advanced Micromachining Technologies for the Informational Era	
ECEN 772	Introduction to Microelectromechanical Devices and Systems	
Total Semester Credit Hours		13