

SEMICONDUCTOR MATERIALS AND DEVICES MINOR

This minor provides students with foundational knowledge in the science, engineering, and manufacturing related to the semiconductor industry. The mine requires a core introductory course that covers the fundamentals of semiconductor materials and device operation. This is followed by flexible pathways that allow students to explore areas such as materials science, microelectronics and devices, and manufacturing. This enables students from various disciplines to gain relevant expertise while also tailoring the minor to their interests and career goals in the rapidly growing semiconductor sector.

NOTE: Students may choose *either* the Materials Science and Engineering minor *or* the Semiconductor Materials and Devices minor.

Total Required Credits: 20

Code	Title	Credit Hours
MSCI-200	Introduction to Semiconductors	4
Select One or Two of the Following		
MSCI-337	Material Synthesis	4
MSCI-465	Materials Characterization	4
MSCI-335	Computational Materials Science for Energy Applications	4
Select One or Two of the Following		
EE-325	Principles of Microelectronics Processing	4
EE-427	Semiconductor Device Fundamentals	4
PHYS-366	Introduction to Quantum Physics and Applications	4
PHYS-376	Photonics and Optoelectronics: Fundamentals and Applications	4
Select One of the Following		
CHME-302	Engineering Safety and Risk Management	4
IME-471	Quality Control	4
IME-476	Lean Six Sigma	4