



BUILDING YOUR CAREER IN MICRO/NANOFABRICATION

Are you an undergraduate electrical engineering student interested in micro/nanofabrication? If you enjoyed classes such as EELE 261 – Introduction to Logic Circuits or EELE 317 – Electronics, a career in microfabrication might be your calling. This guide will help you select professional electives designed to help you launch your career!

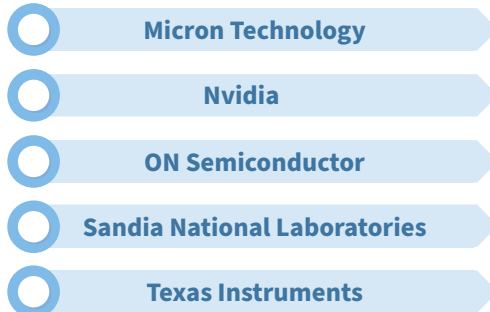
WHAT IS THE FOCUS OF MICRO/NANOFABRICATION?

Every semiconductor device from diodes to transistors, or combined into integrated circuits and microprocessors are made possible by the techniques used in microfabrication.

WHICH INDUSTRIES USE MICRO/NANOFABRICATION?

Your skills in micro/nanofabrication will be in demand in multiple sectors, including manufacturing, microelectromechanical systems or MEMS, and opto-electronics.

HERE ARE A FEW COMPANIES THAT FREQUENTLY HIRE MSU GRADUATES WITH MICRO/NANOFABRICATION EXPERTISE:



ADVISERS FOR CAREERS IN MICRO/NANOFABRICATION FABRICATION FACULTY

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EE ADVISING GUIDE: MICRO/NANOFABRICATION

CHOOSING PROFESSIONAL ELECTIVES IN MICRO/NANOFABRICATION:

As an EE major, you are allowed to choose 27 credits of professional electives as part of your undergraduate degree. Spend these wisely. Of these 27 credits, at least 18 must be from the ECE department, at least 6 must be from outside of ECE and at least four must be >300 level.

LAUNCH-PAD COURSES FOR CAREERS IN MICRO/NANOFABRICATION



MICRO/NANOFABRICATION

EELE 317	Electronics (3 credits)	Fall/Spring	<input type="checkbox"/>
CHMY 141/142	College Chemistry / Chemistry Lab (4 credits)	Fall/Spring/Summer	<input type="checkbox"/>
EELE 407	Microfabrication (3 credits)	Fall	<input type="checkbox"/>
EELE 408	Photovoltaics (3 credits)	Spring	<input type="checkbox"/>
EELE 409	Material Science (3 credits)	Fall	<input type="checkbox"/>
EELE 418	The Art of Biochips, An Introduction to BioMEMS (3 credits)	Spring	<input type="checkbox"/>
STAT 332	Statistics for Scientists and Engineers (3 credits)	Fall/Spring	<input type="checkbox"/>



OTHER RECOMMENDED NON-ECE ELECTIVES:

EMEC 467	Micro-Electromechanical Systems (3 credits)	Spring	<input type="checkbox"/>
STAT 408	Statistical Computing and Graphical Analysis (3 credits)	Fall/Spring	<input type="checkbox"/>
STAT 411	Methods for Data Analysis (3 credits)	Fall/Spring	<input type="checkbox"/>
STAT 441	Experimental Design (3 credits)	Spring	<input type="checkbox"/>
STAT 446	Sampling (3 credits)	Fall	<input type="checkbox"/>
PHSX 441	Solid State Physics (3 credits)	Fall	<input type="checkbox"/>

DID YOU KNOW?

You can take EELE 407 Microfabrication as early as fall of your sophomore year since its prerequisite is only Physics II.