Micro and Nanotechnology
Department of Mechanical and Aerospace Engineering, Ohio State University

- A total of 12 credit hours are required to complete the Technical Elective Requirements
- Students must complete two courses (a minimum of 6 credit hours) from two of the three categories (Design, Computational, Applications)
- **This is an example curriculum. All students must meet program requirements as detailed here: https://mae.osu.edu/mechanical-engineering-technical-electives**

Design Classes- Take up to 6 credit hours of		
Course	Hours	Course Name
ME 5144	3	Fracture Mechanics
ME 5374	3	Smart Materials and Intelligent System

Computational Classes- Take up to 3 credit hours of		
Course	Hours	Course Name
ME 5139	3	Applied Finite Element Method

Applications Classes- Take up to 3 credit hours of		
Course	Hours	Course Name
ME 5180	3	Mechanics of Biomolecular Systems

Other Classes- Take no more than 3 credit hours of the following		
Course	Hours	Course Name
BIOMEDE 4610	3	Biomedical Micro/ Nanotechnology
BIOMEDE 5110	3	Biomedical Microscopic Imaging
BIOMEDE 5177	3	Biomedical Atomic Force Microscopy
BIOMEDE 5605	3	Biomedical Micro/ Nanotechnology
BIOMEDE 5610	3	Biomedical Microdevices
BIOMEDE 5635	3	Cellular Nanotechnology (crosslisted with CBE 5735)
BIOMEDE 5661	3	Biomedical Nanotechnology I (crosslisted with CBE 5769)
BIOMEDE 5663	3	Introduction to Microfluidics and Nanofluidics
BIOMEDE 5667	3	BioMEMS Microfabrication
BIOMEDE 5668	3	Biomedical Microtransducers
BUSMHR 2500	3	Entrepreneurship
CBE 5777	3	Introduction to Polymer Engineering at Macro-, Micro-, & Nanoscale
CHEM 3510	3	Inorganic Chemistry
CHEM 5520	3	Nanochemistry
ECE 5037	4	Solid State Microelectronics Laboratory
ECE 5465	3	Advanced Microcomputers
ECE 5530	3	Fundamentals of Semiconductors for Microelectronics & Photonics
MATSCEN 5552	3	Nanoscale Synthesis and Processing of Electronic Materials
PUBAFRS 3000	3	Introduction to Public Policy Analysis
PUBAFRS 5600	3	Science, Engineering, and Public Policy