

Experimentation/Design Requirements

M.S. candidates must take a minimum of 3 units of course work that include an experimental/design component, for which courses on the following list are pre-approved. Students should consult with their advisors in selecting the most appropriate classes for their field.

<u>Course Number</u>	<u>Course Name</u>	<u>Unit Count</u>
AA 236A	Spacecraft Design	3 - 5
AA 236B	Spacecraft Design Laboratory	3 - 5
AA 236C	Spacecraft Design Laboratory	3 - 5
AA 241X	Autonomous Aircraft: Design/Build/Fly	3
AA 257	Design of Multifunctional Composites	3
AA 284B	Propulsion System Design Laboratory	3
AA 284C	Propulsion System Design Laboratory	3
CS 225A	Experimental Robotics	3
CS 402L (EDUC 211)	Beyond Bits and Atoms- Lab	3 - 4
EE 233/133	Analog Communications Design Laboratory	3 - 4
EE 234	Photonics Laboratory	3
EE 251	High-Frequency Circuit Design Laboratory	3
EE 312	Integrated Circuit Fabrication Laboratory	3 - 4
ENGR 206	Control System Design	3 - 4
ENGR 207A	Linear Control Systems I	3
ENGR 341	Micro/Nano Systems Design and Fabrication	3 - 5
MATSCI 160	Nanomaterials Laboratory	4
MATSCI 164	Electronic and Photonic Materials and Devices Laboratory	3 - 4
MATSCI 171/161	Energy Materials Laboratory	3 - 4
MATSCI 172/162	X-Ray Diffraction Laboratory	3 - 4
MATSCI 173/163	Mechanical Behavior Laboratory	3
MATSCI 322	Transmission Electron Microscopy Laboratory	3
ME 210	Introduction to Mechatronics	4
ME 218A	Smart Product Design Fundamentals	4 - 5
ME 218B	Smart Product Design Applications	4 - 5
ME 218C	Smart Product Design Practice	4 - 5
ME 218D	Smart Product Design: Projects	3 - 4
ME 220	Introduction to Sensors	3 - 4
ME 310A	Engineering Design Entrepreneurship and Innovation: exploring the problem space	4
ME 310B	Engineering Design Entrepreneurship and Innovation: exploring the solution space	4
ME 310C	Engineering Design Entrepreneurship and Innovation: make it REAL	4
ME 324	Precision Engineering	4
ME 348	Experimental Stress Analysis	3
ME 354	Experimental Methods in Fluid Mechanics	4
ME 367	Optical Diagnostics and Spectroscopy Laboratory	4