

# M.S. Curriculum

**This degree requires 24 credit hours of coursework (at least 12 credit hours at 8000 level) and 6 hours of thesis research**

## Required courses

Take both of these:

- ME 8213      Engineering Analysis
- ME 6193      Automotive Engineering

## Elective courses

(CI: Consent of Instructor)

Take at least 12 credit hours from this list:

- ME 81X4      Microstructure Evolution and Strengthening of Materials, Prereq: **ME 3403**
- ME 82X4      Structural Metal Processing and Texture, Prereq: **ME 3403**
- EM 8113      Theory of Continuous media, Prereq: **MA 3353** or CI
- ME 6624      Experimental Methods in Materials, Prereq: **CHE 3413** or **ABE 3813** or **ME 3403** or CI
- ME 8243      Finite Elements in ME, ME 4403, Prereq: **EM 3213**, **ME 3403**
- ECE 6283      Semiconductor Process Fabrication, Prereq: **ECE 3424**, **ECE 3413**
- EPP/ME 8144      Transmission Electron Microscopy, Prereq: CI
- ME 6133      Mechanical Metallurgy, Prereq: **ME 3403**
- ME 6123      Failure of Engineering Materials: Prereq: **EM 3213**
- EM 6133      Mechanics of Composite Materials: Prereq: **EM 3213**, **MA 3253**

Additional credit hours can be taken from the list below:

- MA 8283      Calculation of Variations, Prereq: CI
- CHE 6423      Fundamentals of Industrial Corrosion, Prereq: **CHE 3413** or **ME 3403** or **ABE 3813**
- MA 6153      Mathematics and Linear Algebra, Prereq: **MA 3113**, **MA 3253**
- ECE 6293      Nanoelectronics, Prereq: **ECE 3213**, **ECE 3424**, **PH 2233** or **PH 3613**.