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.