Credit Hours
(M.S. Thesis Required)
30 Minimum Credit Hours Total
➢ 20 From MSE Approved Courses
➢ 12 From Core Courses
➢ 10 Minimum Research Credit Hours

Thesis Credit Hours
➢ 10 Minimum for Thesis Based M.S.

Core Courses

Metals/Ceramics
➢ Advanced Thermodynamics (MTEN-7035)
➢ Mechanical Behavior of Materials II (MTEN-6097)
➢ Kinetics of Materials Processing (MTEN-6020)
➢ Phase Transformations in Solids (MTEN-6071)

Polymers
➢ Advanced Thermodynamics (MTEN-7035)
➢ Introduction to Polymer Science (MTEN-7094)
➢ Properties of Polymers (MTEN-6034)
➢ Polymer Analysis/Characterization (MTEN-7032C)

When to Graduate
M.S. students should complete their degree within 6 semesters. Financial aid may be withheld after this time limit.

Master of Engineering (MEng)

Two MEng tracks are currently offered in MSE program

Materials Science
Metallurgical Engineering

7 courses are required for either track
1 under Project/Task Management Development
1 under Interpersonal Skill Development
4 Track Required Courses
1 Capstone Project

Track Required Courses – 4 courses from the following
MTEN6010L PHYS PROP SOLIDS Fall
MTEN6012C Nano Materials Eng Spring
MTEN6013 Smart Structures Fall
MTEN6020 Kinematics of Materials Proc Fall
MTEN6025C POLYMER PROCESSING Spring
MTEN6034 Polymer Properties Fall
MTEN6035 Polymer Spectroscopy Fall
MTEN6042 COMPOSITE MATERIALS Spring
MTEN6044 Ceramics Processing Fall
MTEN6047 ELEC OPT PROP CER
MTEN6049 Mag, Diel and Sensor Properties
MTEN6060 Corrosion Spring
MTEN6065 Biomedical Materials Fall
MTEN6070 Phase Transitions Spring
MTEN6085 Coatings Spring
MTEN6090 MOLECULAR MODELING Spring
MTEN6096 Smart Materials Fall
MTEN6097 Mech Prop Materials Fall
MTEN 7010cC Adv Materials Tech Fall
MTEN7032 Polymer Analysis & Char Spring
MTEN7035 Advanced Thermodynamics Fall
MTEN7048 DIFFRACTION THEORY Spring
MTEN7079 DEFECT IN SOLID
MTEN7094 POLYMER SCIENCE Fall