

Michigan Technological University

Minor in Structural Materials

Program Code MSSM, Academic Year 2024-25

College of Engineering

Total Credits Required: 18

Required Courses: 9 Credits

- MSE 2110 Intro to Materials Science & Engineering (3) *Prereqs: (MY2100 or MSE2100 or BE2800) and (ENG1100 or ENG1101)*
- MSE 3170 Material Selection in Mechanical Design (3) *Prereqs: (MSE2110 and MEEM2110) or ENG2120*
- MSE 4100 Mechanical Behavior of Materials (3) *Prereqs: (MY2110 or MSE2110) and (MEEM2150 or ENG2150)*

Elective Courses: 9 credits

- CEE 3101 Civil Engineering Materials (3) *Prereqs: ENG2120 or MEEM2150 or CMG2120*
- MSE 3120 Materials Characterization I (4) *Prereqs: MY2110 or MSE2110*
- MSE 3130 Materials Characterization II (4) *Prereqs: MY2100 or MSE2100 or BE2800*
- MSE 4110 Intro to Polymer Engineering (3) *Prereqs: (MY2100 or MSE2100 or BE2800) and CH1160*
 - or CM/CH 4610 Intro to Polymer Science (3) *Prereqs: CH1122 or (CH1160 and CH1161)*
- MSE 4310 Principles of Metal Casting (3) *Prereqs: MY2100 or MSE2100 or BE2800*
- MSE 4320 Corrosion & Environmental Effects (3) *Prereqs: MY2100 or MSE2100 or BE2800*
- MSE 4330 Advanced Physical Metallurgy (3) *Prereqs: MY3300 or MSE3140*
- MSE 4410 Science of Ceramic Materials (3) *Prereqs: MY2100 or MSE2100 or BE2800*
- MSE 4430 Composite Materials (3) *Prereqs: MY2100 or MSE2100 or BE2800*
- MSE 4520 Materials Forensics (3) *Prereqs: MY2100 or MSE2100 or BE2800*
- MSE 4990 Undergraduate Research (1-3) *Prereqs: none*