

Michigan Technological University

Minor in Electronic Materials

Program Code MSEM, Academic Year 2021-22

Department of Materials Science and Engineering

Total Credits Required: 18

Required Courses: 9 credits

Course	Credits
EE 3290 Photonic Materials & Devices (4) or MSE 4292 Light and Photonic Materials (3)	3/4
MSE 2100 Intro to Materials Science & Engineering	3
MSE 3150 Intro to Semiconductor Materials & Devices	3

Elective Courses: 9 credits

Course	Credits
EE 3140 Electromagnetics	3
MSE 3120 Materials Characterization I (4) or MSE 3121 Materials Characterization I (3) and MSE 3122 Materials Characterization I Lab (1)	4
MSE 3130 Materials Characterization II (4) or MSE 3131 Materials Characterization II (3) and MSE 3132 Materials Characterization II Lab (1)	4
MSE 4410 Science of Ceramic Materials	3
MSE 4530 Scanning Electron Microscopy	3
MSE/EE 4240 Introduction to MEMS	4
MSE 4990 Undergraduate Research	1-3
MSE/EE 5430 Electronic Materials	3
MSE/EE 5460 Solid State Devices	3
MSE/EE 5470 Semiconductor Fabrication	3
MSE/EE 5490 Solar Photovoltaic Technology	3
PH 3480 Advanced Physics Laboratory	2

Courses listed in this minor have the following prerequisites (shown in parenthesis). Concurrency is illustrated by the letter C: EE3140 (PH2200 and MA3160), EE3290 (EE2190 or EE3140 or PH2400), MSE2100 (CH1150), MSE3120 (MSE2110), MSE3131 and MSE3132 (MSE2100 or BE2800), MSE 4410 (MSE2100), PH3480 (PH2230)