

## Michigan Technological University

### Minor in Electronic Materials

Program Code: MSEM, Academic Year 2019-20

Department of Materials Science and Engineering

Total Credits Required: 18

#### Required Courses: 9 credits

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

#### Elective Courses: 9 credits

Course	Credits
EE 3140 Electromagnetism (3)	
MSE 3120 Materials Characterization I (4)	
MSE 3130 Materials Characterization II (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), MSE 4410 (MSE2100), PH3480 (PH2230)