

Michigan Technological University**Minor in Manufacturing Systems**

Program Code: EMSM, Academic Year 2019-20

Department of Manufacturing and Mechanical Engineering Technology

Total Credits Required: 18

Required Courses: 12 credits

Course	Credits
MET 3500 Manufacturing Process (3)	
MET 4510 Lean Manufacturing, Principles, Concepts and Applications (3)	
MET 4550 Computer Aided Manufacturing (3)	
MET 4780 Advanced Manufacturing (3)	

Elective Courses: 6 credits

Course	Credits
EET 3373 Introduction to Programmable Controllers (3)	
EET 4144 Real-Time Robotics Systems (3)	
EET 4147 Industrial Robotic Vision Systems & Advanced Teach Pendant Programming (3)	
EET 4373 Advanced Programmable Controllers (3)	
MET 4210 Applied Quality Techniques (3)	
MET 4355 Industrial Systems Simulation (3)	
MET 4585 Facilities Layout and Safety Design (3)	

Courses listed in this minor have the following prerequisites (shown in parentheses). Concurrency is indicated by the letter C: EET3373 (EET1411 or (EET2120 and EET2141) or EET2411 or PH2230 or EE2110 or EE3010), EET4144 (EET1411 or EET2220 or PH2230 or EE2110 or EE3010), EET4147 (EET4144), EET4373 (EET3373), MET3500 (MET1020 or ENG1102) and (MET1540 or MY2100), MET4210 (MA2720(c) or MA3710(c)), MET4550 (MET2153 and MET2400), MET4780 (MEEM2500 or MET3500)