Michigan Technological University
Minor in Manufacturing
Program Code EMMF, Academic Year 2024-25
College of Engineering
Total Credits Required: 18

Required Courses: 6 Credits
- EC 3400 Economic Decision Analysis (3) Prereqs: UN1015 and UN1025
- MEEM 3600 Introduction to Manufacturing (3) Prereqs: MEEM2150 and (MY2100 or MSE2100)

Elective Courses: 12 credits
Process Courses: Select at least 3 credits
- EE/MSE 4240 Introduction to MEMS (4) Prereqs: none
- EE/MSE 4777 Open-Source 3-D Printing (3) Prereqs: none
- ENT 3966 Design for Manufacturing (1) Prereqs: ENG1102
- MEEM 4610 Advanced Machining Processes (3) Prereqs: MEEM2500 or MEEM3600
- MEEM 4625 Precision Manuf. & Metrology (3) Prereqs: (MEEM3700 and MEEM3502) or MEEM3600
- MEEM 4635 Design with Plastics (3) Prereqs: (MY2100 or MSE2100) and MEEM2150 and (MEEM3201 or CM3110)
- MEEM 4640 Micromanufacturing Processes (3) Prereqs: MEEM3400 and MEEM3600
- MEEM 4695 Additive Manufacturing (3) Prereqs: MEEM3600
- MEEM 5401 Design for Reliability (3) Prereqs: MEEM4901 or ENT4950
- MEEM 5670 Experimental Design in Engineering (3) Prereqs: MEEM4901 or ENT4950
- MSE 4310 Principles of Metal Casting (3) Prereqs: MY2100 or MSE2100 or BE2800

System Courses: Select at least 3 credits
- ENT 3959 Fundamentals of Six Sigma I (1) Prereqs: none
- ENT 3967 Six Sigma II (1) Prereqs: none
- MEEM 4430 Advanced CAD and CAM Methods (4) Prereqs: ENG1102 and MEEM3600
- MEEM 4630 Human Factors (3) Prereqs: none
- MEEM 4650 Quality Engineering (3) Prereqs: MEEM3600 and (MA3710 or MA3720 or MA2710 or MA2720)
- MEEM 4655 Production Planning (3) Prereqs: MEEM3600
- MEEM 4675 Design Material Handling Systems (3) Prereqs: MEEM2150
- MEEM 4705 Intro Robotics & Mechatronics (4) Prereqs: MEEM3750
- MEEM 4707 Autonomous Systems (3) Prereqs: MEEM3750 or MEEM4700 or MEEM4775
- MEEM 5655 or MEEM 4665 Intro to Lean Manufacturing (3) Prereqs: MEEM3600
- MEEM 5680 Optimization I (3) Prereqs: MEEM4901 or ENT4950