

**Michigan Technological University****Minor in Data Acquisition and Industrial Control**

Program Code: TDAC, Academic Year 2019-20

College of Computing

Total Credits Required: 18

**Required Courses: 6 credits**

Course	Credits
EET 3131 Instrumentation (3) or EET 4253 LabVIEW Programming for Data Acquisition (3)	
EET 3373 Introduction to Programmable Controllers (3)	

Note: EET 3131 is taken in the spring semester and EET 3373 is taken in the fall semester

**Required Courses: select only one course for 3 to 4 credits**

Course	Credits
EE 2112 Electric Circuits II and Lab (4)	
EE 3010 Circuits and Instrumentation (3)	
EET 1411 Basic Electronics (4)	
EET 2120 Circuits II (4)	

**Elective Courses: select 8 to 9 additional credits from the list below**

Course	Credits
CEE 3502 Environmental Monitoring and Measurement Analysis (3)	
CM 3310 Process Control (3)	
EET 4141 Microcontroller Interfacing (4)	
EET 4144 Real-Time Robotics Systems (4)	
EET 4147 Industrial Robotic Vision Systems and Advanced Teach Pendant Programming (4)	
EET 4311 Advanced Circuits and Controls (4)	
EET 4373 Advanced Programmable Controllers (4)	
GE 4250 Fundamentals of Remote Sensing (3)	
MEEM 3911 Mechanical Engineering Practice IV (3)	
MEEM 4701 Analytical & Experimental Modal Analysis (4)	
SU 4003 GIS Technology Fundamentals (1)	
SU 4010 Geospatial Concepts, Technologies, and Data (3)	
UN 4000 Seminar Series in Earth, Planetary, and Space Sciences (1-2)	

Courses listed in this minor have the following prerequisites (shown in parenthesis). Concurrency is illustrated by the letter C: CEE3502 (MA2160 and CH1112 or (CH1150 and CH1151)), CM3310 ((MA3520 or MA3521 or MA 3530 or MA3560) and PH 2200 and CM2110 and CM2120), EET2120 (EET1120 and (MA1160(C) or MA1161(C) or MA1135(C))), EET3131 (EET1411 or EET2220 or PH2230 or EE2110 or EE3010), EET3373 (EET1411 or (EET2120 and EET2141) or EET2411 or PH2230 or EE2110 or EE3010 or EE2112), EE2112 (EE1110 and EE2111 and (MA3520 or MA3521 or MA3530 or MA3560)), EET1411 (MA1031 or MA1032 or MA1160 (C) or MA1161 (C) or MA1135 (C)), EET2220 (EET2120), EET4147 (EET4144), EET4141 (EET2141 or CS1121), EET4144 (EET1411 or EET2220 or PH2230 or EE2110 or EE3010), EET4311 (EET3131 or EET4253), EET4373 (EET3373), GE4250 (PH2200 and MA2160), MEEM 4701 (MEEM3000 and MEEM3750), PH2230 (PH2200 or PH2260), MEEM3911 (MEEM3901 and EE3010 and MEEM3400(C) and MEEM3600(C)).