



## 2015-2016 *Internal Certificate*

**Certificate:**                    **MANUFACTURING MAINTENANCE (90-628-1)**

**Credits:**                        **18 Credits**

**Description:**                This certificate introduces students to the maintenance functions of automated manufacturing, laws of mechanics and principles of physics, physical laws of compression, electronics, motor controls and ladder logic, operation of Programmable Logic Controllers (PLC), and diagnostics, troubleshooting, and interfacing the PLC to other controls, networks, and devices. This certificate leads to careers as maintenance technicians, maintenance supervisors, managers in technically-oriented companies, or industrial technicians. With proper use of electives, all courses in this certificate may be applied to the Automated Manufacturing Systems Technician associate degree.

**Related program:**            Automated Manufacturing Systems Technician

**Campuses Available:**    Elkhorn, iMET, Lakeview and Racine

### REQUIRED COURSES

✓	<u>Semester One</u>	<u>Credits</u>	<u>Prerequisite</u>	<u>Corequisite</u>
☐	605-113 DC/AC I	3		
☐	612-102 Pneumatics/Hydraulics, Introduction	3		
☐	620-103 Intro to Industrial Controls	4		605-113
☐	628-109 Mechanical Skills for Technicians	3		
✓	<u>Semester Two</u>	<u>Credits</u>	<u>Prerequisite</u>	<u>Corequisite</u>
☐	628-100 Automated Manufacturing Concepts/Intro	2		
✓	<u>Semester Three</u>	<u>Credits</u>	<u>Prerequisite</u>	<u>Corequisite</u>
☐	442-101 Welding Basics OR	1 OR		
☐	442-102 Introduction to Welding	2		
☐	620-140 Programmable Controllers	2	602-103	
<b>Total Credits</b>		<b>18</b>		

NOTE: Students must complete a certificate program with a minimum of a 2.0 Program GPA.

NOTE: Prerequisites can be waived with departmental approval.