



# 2016-2017 Certificate

**Certificate:**                    **PROGRAMMING FOR MANUFACTURING (90-628-2)**

**Credits:**                        **17 Credits**

**Description:**                This certificate introduces students to basic maintenance functions of automated manufacturing, including interpretation of engineering drawings, laws of mechanics and principles of physics, physical laws of compression, 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, Lakeview and Racine

## REQUIRED COURSES

✓	<u>Semester One</u>	<u>Credits</u>	<u>Prerequisite</u>	<u>Corequisite</u>
<input type="checkbox"/>	605-113 DC/AC I	3		
<input type="checkbox"/>	620-103 Intro to Industrial Controls	4		605-113
<input type="checkbox"/>				
✓	<u>Semester Two</u>	<u>Credits</u>	<u>Prerequisite</u>	<u>Corequisite</u>
<input type="checkbox"/>	628-100 Automated Manufacturing Concepts/Intro	2		
<input type="checkbox"/>	628-110 CNC/CAM Programming	3		
<input type="checkbox"/>				
✓	<u>Semester Three</u>	<u>Credits</u>	<u>Prerequisite</u>	<u>Corequisite</u>
<input type="checkbox"/>	620-140 Programmable Controllers	2	602-103	
<input type="checkbox"/>	628-111 Computer Asst. Prog./Robot and FMS	3		
<input type="checkbox"/>				
<b>Total Credits</b>		<b>17</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.