

## ADVANCED MANUFACTURING

### Program Overview

The demand for manufacturing technicians exists throughout McHenry County and the entire country. Every phase of American life is dependent upon their efforts. Everything that is planned and fabricated, from airplanes to sewing machines, needs detailed designs that must first be tested and then brought into production. As our society becomes more automated and computer enhanced, the need for these semi-professionals will continue to increase.

Manufacturing design and engineering technicians are part of the engineer-scientist-technician team that designs and produces a variety of products. Assignments include traditional drafting, Computer Aided Design

(CAD), implementing engineering directives, material and product testing, and customer service.

### Advanced Manufacturing Technician Certificate

The Advanced Manufacturing Technician certificate program provides a number of options. Students may wish to earn other related certificates in related manufacturing technologies, such as supervision or manufacturing processes. Or, students can continue studies and earn an Associate in General Education (AGE). Check with the department chair of Applied Technologies regarding goals and the future transferability of coursework.

For more information, visit:

[www.mchenry.edu/advancedmanufacturing](http://www.mchenry.edu/advancedmanufacturing)

### Requirements for the Advanced Manufacturing Technician Certificate

Curriculum: OCC 172	Credit Hours		
<b>Program Core</b>	24	(3) AET 151 Computer Aided Design Graphics I (3) AET 171 Parametric Modeling SolidWorks I (3) IMT 100 Introduction to Manufacturing (3) IMT 102 Manufacturing Processes	(3) IMT 103 Materials of Industry (3) IMT 104 Blueprint Reading for Manufacturing (3) MAT 106 Technical Mathematics II (3) AET or ROB 110 elective subject to department chair approval.
Please select one of the following options: <b>CNC MACHINING OR AUTOMATION</b> (9 credit hours required)			
<b>CNC Machining Specialization Option</b>	9	(3) IMT 105 Introduction to Manual Machining (3) IMT 106 CNC Programming I (3) IMT 155 CNC Programming II	
<b>Automation Specialization</b>	9	Choose 9 credits from the following: (3) ROB 115 Introduction to Electronics (3) ROB 116 Electricity and Automatic Controls (3) ROB 145 Hydraulics, Pneumatics, and Controls (3) ROB 150 PLC Automation Applications I (3) ROB 151 PLC Automation Applications II	
<b>Total Certificate Credits</b>	33		

### Other Certificate Graduation Requirements:

- 2.0 minimum cumulative GPA at MCC upon completion of program
- For certificates of less than 12 credit hours, all required credits must be completed through MCC coursework. For all other certificates, one-half of the minimum credit hours required must be completed through MCC coursework.
- Completion of the graduation application
- Completion of end-of-program assessment, as designated by this department

**For more information, contact the department chair: (815) 479-7521.**