

Requirements for the Manufacturing Design Technology Certificate

Curriculum: OCC 172	Credit Hours		
Program Core	24	(3) AET 151 Computer Aided Design Graphics I (3) AET 152 Computer Aided Design Graphics II (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) IMT 105 Intro to Machining and CNC (3) MAT 106 Technical Mathematics II
Program Electives 6 credit hours	6	(1-6) AET 299 Independent Study in Design Technology (3) CIS 110 Computer Literacy	
Total Certificate Credits	30		

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 Intent to Graduate form
- Completion of end-of-program assessment, as designated by this department

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

MANUFACTURING MANAGEMENT

Program Overview

The constantly changing manufacturing sector calls for well-trained, adaptable supervisors. Businesses need first- and second-line supervisors who are capable of interpreting policies to employees, setting work goals, improving communications and interpersonal relationships, maintaining discipline, and motivating employees.

MCC’s Manufacturing Management program prepares students for these manufacturing leadership positions. The curriculum is designed for those who have experience in manufacturing and want to gain the managerial skills necessary for promotion.

Offerings include two certificates and an associate’s degree. The degree program covers supervisory skills; manufacturing materials, processes and procedures;

and managerial functions, focusing on actual workplace issues. Later courses provide more concentrated study in production and inventory control, plant layout and material handling, personnel relations, cost and quality control, and maintenance and safety practices.

The courses in this program are arranged in a sequence that provides optimal learning opportunities. Students are required to follow the integrated program sequence.

The primary purpose of an Associate in Applied Science degree is to prepare students for employment. The AAS degree is not designed specifically for transfer; however, there are opportunities to apply some coursework or the whole degree to a bachelor’s degree program. For more information, see an academic advisor and the department chair.

Requirements for the Associate in Applied Science (AAS) in Manufacturing Management

Curriculum: OCC 150	Credit Hours		
General Education Core			
Communications 2 courses ENG 151 and SPE 151 recommended	6	(3) ENG 105 Technical Communications (3) ENG 151 Composition I	(3) ENG 152 Composition II (3) SPE 151 Intro to Speech
Humanities & Fine Arts 1 course PHI 251 recommended	3	Humanities <i>Select from the following prefixes or course numbers:</i> ENG (does not include: 105, 151, 152, 088-099) FRE GER (3) JRN 152 Intro to Mass Communication (3) JRN 155 Newswriting (3) JRN 165 Intro to Broadcasting (3) JRN 170 Feature Writing PHI (4) SPA 151 Elementary Spanish I (4) SPA 152 Elementary Spanish II (4) SPA 251 Intermediate Spanish I (4) SPA 252 Intermediate Spanish II (3) SPE 155 Interpersonal Communication (3) SPE 161 Small Group Communication	Humanities cont’d. (3) SPE 251 Intercultural Communication (3) SPE 265 Fundamentals of Oral Interpretation Fine Arts <i>Select from the following prefixes or course numbers:</i> ART (does not include: 166, 290, 299) (3) AET 141 Interior Design I (3) AET 142 History of Interiors (3) AET 241 Interior Design II (3) DGM 167 Graphic Design I (3) DGM 168 Computer Art I (3) JRN 180 Intro to Film MUS (does not include: 100, 104, 160, 161, 162, 201-218) THE

Mathematics, Physical or Life Sciences 1 course GEG 123 recommended	3	Mathematics <i>Select from the following prefixes or course numbers:</i> MAT (100-level or above) Sciences <i>Select from the following prefixes or course numbers:</i> BIO	Sciences cont'd. CHM EAS (3) GEG 101 Physical Geography (3) GEG 123 Energy Resources (3) GEG 220 The Global Environment GEL (4) HRT 103 Intro to Plant Science (4) HRT 105 Intro to Soil Science PHY
Social and Behavioral Sciences 1 course SOC 151 recommended	3	<i>Select from the following prefixes or course numbers:</i> ANT ECO (3) GEG 202 Geog. of Developed World (3) GEG 203 Geog. of Developing World (3) GEG 204 Economic Geography	HIS PLT PSY SOC
Program Core	44-46	(3) MAT 106 Technical Mathematics II (3) CIS 110 Computer Literacy (3) IMT 102 Manufacturing Processes (3) IMT 103 Materials of Industry (3) IMT 104 Blueprint Reading for Manufacturing (3) IMT/MGT 110 Supervisory Responsibility (3) IMT 112 Training the Trainer (3) IMT 116 Industrial Safety Management (3) IMT 117 Production & Material Control (3) IMT 121 Total Quality Management (3) IMT 135 Maintenance Management	(3) IMT 210 Continuous Improvement Practices (6) IMT 299 Indep. Study in Manufacturing (2) + (2) IMT 200 & 205 Computer Integrated Manufacturing I & II or (3) AET 151 Computer Aided Design Graphics I or (2) AOM 131 Intro to Windows Spreadsheet Applications
Program Electives 1 course	3	(3) IMT 125 Principles of Personnel + Industrial Relations (3) MGT 150 Principles of Management (3) MGT 210 Human Resources Management	
Total Degree Credits	62-64		

Other AAS Graduation Requirements:

- 2.0 cumulative GPA at MCC upon completion of program
- 15 semester hours of program-specific coursework taken at MCC
- Completion of Intent to Graduate form
- Completion of end-of-program assessment as directed by this department

Requirements for the Manufacturing Processes Certificate

Curriculum: OCC 152	Credit Hours		
Humanities & Fine Arts 1 course PHI 251 recommended	3	Humanities <i>Select from the following prefixes or course numbers:</i> ENG (does not include: 105, 151, 152, 088-099) FRE GER (3) JRN 152 Intro to Mass Communication (3) JRN 155 Newswriting (3) JRN 165 Intro to Broadcasting (3) JRN 170 Feature Writing PHI (4) SPA 151 Elementary Spanish I (4) SPA 152 Elementary Spanish II (4) SPA 251 Intermediate Spanish I (4) SPA 252 Intermediate Spanish II (3) SPE 155 Interpersonal Communication (3) SPE 161 Small Group Communication	Humanities cont'd. (3) SPE 251 Intercultural Communication (3) SPE 265 Fundamentals of Oral Interpretation Fine Arts <i>Select from the following prefixes or course numbers:</i> ART (does not include: 166, 290, 299) (3) AET 141 Interior Design I (3) AET 142 History of Interiors (3) AET 241 Interior Design II (3) DGM 167 Graphic Design I (3) DGM 168 Computer Art I (3) JRN 180 Intro to Film MUS (does not include: 100, 104, 160, 161, 162, 201-218) THE

Mathematics, Physical or Life Sciences 1 course GEG 123 recommended	3	Mathematics <i>Select from the following prefixes or course numbers:</i> MAT (100-level or above) Sciences <i>Select from the following prefixes or course numbers:</i> BIO	Sciences cont'd. CHM EAS (3) GEG 101 Physical Geography (3) GEG 123 Energy Resources (3) GEG 220 The Global Environment GEL (4) HRT 103 Intro to Plant Science (4) HRT 105 Intro to Soil Science PHY
Manufacturing Supervision Certificate	27	See certificate requirements	
Program Core	14-16	(3) IMT 102 Manufacturing Processes (3) IMT 104 Blueprint Reading for Manufacturing (3) IMT 121 Total Quality Management (3) IMT 299 Independent Study in Manufacturing	(2) + (2) IMT 200 & 205 Computer Integrated Manufacturing I & II or (3) AET 151 Computer Aided Design Graphics I or (2) AOM 131 Intro to Windows Spreadsheet Applications
Total Degree Credits	47-49		

Requirements for the Manufacturing Supervision Certificate

Curriculum: OCC 151	Credit Hours		
Program Core	18	(3) BUS 145 Business Applications of Mathematics (3) CIS 110 Computer Literacy (3) IMT 103 Materials of Industry	(3) IMT/MGT 110 Supervisory Responsibility (3) IMT 112 Training the Trainer (3) IMT 116 Industrial Safety Management
Program Electives	9	<i>Select 2 courses from the following</i> (ENG 151 and SPE 151 recommended): (3) ENG 105 Technical Communications (3) ENG 151 Composition I (3) ENG 152 Composition II (3) SPE 151 Intro to Speech	<i>Select 1 course or 3 credits from the following prefixes</i> (SOC 151 recommended): (3) ANT, HIS, PHI, PLT, PSY, SOC
Total Certificate Credits	27		

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 Intent to Graduate form
- Completion of end-of-program assessment, as directed by this department for OCC 152 Manufacturing Processes Certificate

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