

ENGINEERING TECHNOLOGY

Program Overview

The Engineering Technology program enables graduates to work in the field of engineering technology specializing in the areas of mechanical or industrial engineering technology. The programs are designed to meet the growing need created by the technology revolution for college-educated problem solvers who can support the engineering process.

The Engineering Technology Program includes scientific and engineering principles relevant to a student's chosen field. Students will come to understand why a system is designed in a particular fashion and how it works.

In addition, engineering technology students will acquire hands-on technical skills that enable them to solve production and system implementation problems and help them explain solutions.

The Computer Numerical Control (CNC) Machining Program is designed for students interested in operating CNC equipment. The program focuses on machining operations using the mill and lathe. The skills learned in this program are directly applicable in the operation of computer-controlled machines performing one or more machine functions on metal or plastic work pieces. Students will be introduced to CNC programming using G codes and conversational programming.

For more information, visit: www.mchenry.edu/engrtech

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 Engineering Technology

Curriculum: OCC 155	Credit Hours		
General Education Core			
Communications 2 courses	6	(3) ENG 105 Technical Communication (3) ENG 151 Composition I	(3) ENG 152 Composition II (3) SPE 151 Intro to Speech
Humanities & Fine Arts, Social & Behavioral Sciences Select 1 course from Humanities & Fine Arts and 1 course from Social & Behavioral Sciences PHI 251 and SOC 151 recommended	6	Humanities & Fine Arts <i>Select 1 course from the following prefixes or course numbers:</i> ART (does not include: 166, 190, 290, 299) (3) AET 141 Interior Design I (3) AET 142 History of Interiors (3) AET 241 Interior Design II (3) DGM 168 Computer Art I ENG (does not include: 088-099, 105, 151, 152) FRE GER (3) GRA 167 Graphic Design I (3) JRN 152 Intro to Mass Communication (3) JRN 155 Newswriting (3) JRN 165 Intro to Broadcasting (3) JRN 170 Feature Writing (3) JRN 180 Intro to Film MUS (does not include: 100, 104, 111, 160, 161, 162, 201-219) PHI	Humanities & Fine Arts cont'd. (4) SPA 151 Elementary Spanish I (4) SPA 252 Intermediate Spanish II (4) SPA 152 Elementary Spanish II (4) SPA 251 Intermediate Spanish I (3) SPE 155 Interpersonal Communication (3) SPE 161 Small Group Communication (3) SPE 251 Intercultural Communication (3) SPE 265 Fundamentals of Oral Interpre- tation THE Social & Behavioral Sciences <i>Select 1 course from the following prefixes or course numbers:</i> ANT ECO (3) GEG 202 Geog. of the Developed World (3) GEG 203 Geog. of the Developing World (3) GEG 204 Economic Geography HIS PLT PSY SOC
Mathematics, Physical or Life Sciences, Technology Select 1 course from Mathematics	3-5	Mathematics Option 1 (3) MAT 106 Tech Math II	Option 2 (5) MAT 165 College Algebra w/ Trigonometry

Program Core	39	(3) AET 151 Computer Aided Design Graphics I (3) AET 152 Computer Aided Design Graphics II or (3) AET 172 Parametric Modeling SolidWorks II (3) AET 171 Parametric Modeling SolidWorks I (3) IMT 100 Intro to Manufacturing (3) IMT 102 Manufacturing Processes (3) IMT 103 Materials of Industry (3) IMT 104 Blueprint Reading for Manufacturing	(3) IMT 105 Introduction to Manual Machining (3) IMT 106 CNC Programming I (3) IMT 120 Metrology for Quality or (3) IMT 121 Quality Practices and Management (3) IMT 250 Manufacturing Internship or (3) AET 261 Technical Portfolio Design I (6) AET elective subject to department chair approval
Please select one of the following options: Mechanical, Industrial or Automation (12 credit hours required)			
Mechanical Option	12	(3) AET 271 Applied Statics or (3) IMT 109 Mechanics of Materials (3) IMT 155 CNC Programming II (6) AET elective subject to department chair approval	
Industrial Option	12	(3) AET or IMT elective subject to department chair approval (3) IMT 117 Supply Chain Management I (3) IMT 210 Continuous Improvement Practices (3) IMT 215 Supply Chain Management II	
Automation Option	12	(3) ROB 110 Intro to Robotics 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	
Total Degree Credits	66-68		

Other AAS Graduation Requirements:

- 2.0 minimum cumulative GPA at MCC upon completion of program
- 15 semester hours of program-specific coursework taken at MCC
- Completion of graduation application
- Completion of end-of-program assessment as directed by this department

Requirements for CNC Machining Certificate

Curriculum: OCC 156	Credit Hours	
Program Core	18	(3) IMT 100 Intro to Manufacturing (3) IMT 104 Blueprint Reading for Manufacturing (3) IMT 105 Introduction to Manual Machining (3) IMT 106 CNC Programming I (3) IMT 155 CNC Programming II (3) MAT 106 Technical Mathematics II
Total Certificate Credits	18	

For more information, visit: www.mchenry.edu/cnc

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 graduation application

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