

**DEPARTMENT OF INDUSTRIAL & ENGINEERING TECHNOLOGY
ASSOCIATE OF APPLIED SCIENCE
COMPUTER TECHNOLOGY MAJOR
AUTOMATED MANUFACTURING OPTION**

The Automated Manufacturing option incorporates a combination of industrial technology and manufacturing components designed to prepare you for positions in the manufacturing/production sectors of industry. Course work includes robotics, programmable logic controllers (PLCs), materials testing, industrial materials and processes, and drafting and solid modeling. Upon completion of this option, students may easily transition to a Bachelor of Science Degree with an Engineering Technology major and a Mechanical & Manufacturing Systems option.

CURRICULUM CHECKLIST

COMPUTER TECHNOLOGY CORE (37 Hours)

___CH 181/081/001 Basic Principles Of Chemistry	5
___EN 100 English Composition OR EN 140 Rhetoric & Critical Thinking	3
___IM 102 Technical Communication	3
___IM 301 Industrial Safety	3
___IM 419 Industrial Supervision	3
___MA 133 Plane Trigonometry	3
___MA 134 College Algebra	3
___MN 260 Technical Computer Programming Applications	3
___PH 120/020 Introductory Physics	5
___PS 103 U. S. Political Systems	3
___SC 105 Fundamentals of Oral Communication	3

AUTOMATED MANUFACTURING OPTION (33 Hours)

___ET 160 Basic Electricity and Electronics	3
___ET 194 Fundamentals of Programmable Logic Controllers (PLCs)	3
___IM 311 Statistical Process Control	3
___MN 120 Fundamentals of Engineering Design Process	3
___MN 170 Engineering Materials and Testing	3
___MN 203 Industrial Materials and Processes I	3
___MN 204 Industrial Materials and Processes II	3
___MN 221 Solid Modeling and Rapid Prototyping	3
___MN 324 Design Modeling & Processes	3
___MN 356 Robotic Fundamentals	3
___MN 412 Advanced Manufacturing Systems	3

EXAMPLE PROGRAM OF STUDY
AAS - Computer Technology major - Automated Manufacturing option

FRESHMAN FALL SEMESTER (14 hrs)

EN 100 English Composition or EN140
CH 181/081/001 Basic Principles of Chemistry
MA 133 Plane Trigonometry
MA 134 College Algebra

FRESHMAN SPRING SEMESTER (17 hrs)

IM102 Technical Communications
MN 120 Fund of Engineering Design Processes
MN 170 Engineering Materials & Testing
MN 260 Technical Computer Programming Appl.
PH 120 Introductory Physics I

SOPHOMORE FALL SEMESTER (12 hrs)

ET 160 Basic Electricity & Electronics
MN 203 Industrial Material & Processes I
SC 105 Fund of Oral Communication
IM 311 Statistical Process Control

SOPHOMORE SPRING SEMESTER (15 hrs)

ET194 Fund of PLC's
IM301 Industrial Safety Supervision
MN 204 Industrial Materials & Processes II
MN221 Solid Modeling & Rapid Prototyping
MN 412 Advanced Manufacturing Systems

JUNIOR FALL SEMESTER (12 hrs)

IM419 Industrial Supervision
MN 324 Design Modeling and Processes
MN 356 Robotics Fundamentals
PS 103 U.S. Political Systems

70 Hours

Notes:

- If you need to take developmental courses, the length of time needed to complete the degree will likely increase.
- This proposed rotation is suggested. You will need to meet with your advisor every semester for advising and discussions about your progress and plans.
- Course prerequisites and rotations can change. Even if you fall under an older option of a major, changes in prerequisites apply to all students. For current prerequisites and course rotation, check with the Department of Industrial and Engineering Technology or the Polytechnic Studies Advising Center.
- For course descriptions, see the latest undergraduate bulletin OR www.semo.edu/bulletin.