

Computer Technology: Automated Manufacturing Option

Associate of Applied Science (AAS)

Automated Manufacturing Option

Computer technology is an Associate of Applied Science (AAS.) Traditionally, AAS degrees are technical in nature with some general education requirements. If your interest is in computer networks and telecommunication systems; computer numerical control; automated machine operations; computer animation and graphics; or multimedia, computer technology might be for you. Upon completion, all of these options transition into bachelor degrees.

Automated Manufacturing

Automated manufacturing combines industrial technology and manufacturing components to prepare students for positions in the manufacturing/production sectors of industry. Course work includes robotics, computer aided manufacturing, computer numerical control, programmable logic controllers, materials testing, industrial materials and processes, and drafting and solid modeling.

Career Planning

Career preparation is part of the mission of Southeast. In fact, more than 90% of Southeast students participate in internships, clinical opportunities, student teaching, research assistantships, and study abroad.

Professional career counselors are available for all students. The Office of Career Services in Academic Hall 057 can provide students with professional career counseling, resume critiques, practice interviews, job search strategies, career events, networking opportunities, and more.

| Demonstrated Career Proficiency is a Requirement of all Southeast Students | | |
|--|----------------|---|
| CL001/CL002 | First Semester | Complete the FOCUS2 assessment and develop a Career Action Plan. |
| CL003 | Junior Year | Students gain information about career planning and job searching resources. |
| CL004 | Senior Year | Students demonstrate advanced proficiency by identifying a position in their field, developing a cover letter, and tailoring a resume for the position. Materials are critiqued to ensure preparedness for a successful job search. |

Career Opportunities

- Production Specialist
- Quality Assurance
- Sales and Estimating
- Production Technician
- Graphic Designer
- PLC Programmer

AAS to BS Options

The following Bachelor of Science degree programs can be easily transitioned into after completion of the AAS degree:

- Technology Management: Industrial & Safety Management Option
- Engineering Technology: Mechanical & Manufacturing Systems Option

Other bachelor degree programs within the Department of Polytechnic Studies might be pursued in conjunction with this AAS degree; however, it may be more difficult. See an advisor for more details.

Southeast A+ Scholarship

This program is eligible for the Southeast A+ Scholarship. Learn more about the scholarship at www.semo.edu/aplus.

A Bachelor of Science degree program within the Department of Polytechnic Studies can be pursued in conjunction with the AAS degree and utilize the Southeast A+ Scholarship. Depending on the major, some courses are suggested sooner in the program (to keep a student progressing in their BS degree on time) that are not covered by the Southeast A+ Scholarship. This means that a student will have to pay out-of-pocket for such courses (such as UI100). Additionally, some programs can be more difficult to complete while using the Southeast A+ Scholarship because of the nature of the coursework.

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This is a guide based on the 2015-2016 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use DegreeWorks to monitor their individual progress.

CURRICULUM CHECKLIST

Computer Technology: Automated Manufacturing Option – 70 Hours

- ___ CH181 Basic Principles of Chemistry (5)
- ___ EN100 English Composition I (3)
OR
- ___ EN140 Rhetoric & Critical Thinking (3)
- ___ IM102 Technical Communications (3)
- ___ IM301 Industrial Safety Supervision (3)
- ___ IM419 Industrial Supervision (3)
- ___ MA133 Plane Trigonometry (3)
- ___ MA134 College Algebra (3)
- ___ MN260 Tech Computer Programming (3)
- ___ PH120 Introductory Physics I (5)
- ___ PS103 U.S. Political Systems (3)
- ___ SC105 Fundamentals of Oral Communications (3)

Automated Manufacturing:

- ___ ET 160 Basic Electricity & Electronics (3)
- ___ ET 304 Introduction to PLCs (3)
- ___ IM 311 Statistical Process Control (3)
- ___ MN 120 Fundamentals of Engineering Design Processes (3)
- ___ MN 170 Industrial Materials & Testing (3)
- ___ MN 203 Industrial Materials & Processes I (3)
- ___ MN 221 Solid Modeling & Rapid Prototyping (3)
- ___ MN 304 Industrial Materials & Processes II (3)
- ___ MN 324 Mechanical Design Processes (3)
- ___ MN 356 Robotics (3)
- ___ MN 412 Advanced Manufacturing System (3)

SAMPLE FIVE-SEMESTER PLAN

| | Fall Semester | | Spring Semester | |
|--------------------|---------------|-----------|-----------------|-----------|
| | Course # | Hrs | Course # | Hrs |
| FIRST YEAR | CH181/081/001 | 5 | IM102 | 3 |
| | EN100/EN140 | 3 | MN120 | 3 |
| | MA133 | 3 | MN170 | 3 |
| | MA134 | 3 | MN260 | 3 |
| | | | PH120/020 | 5 |
| | Total | 14 | Total | 17 |
| SECOND YEAR | ET160 | 3 | ET304 | 3 |
| | IM311 | 3 | IM301 | 3 |
| | MN203 | 3 | MN221 | 3 |
| | SC105 | 3 | MN304 | 3 |
| | | | MN412 | 3 |
| | Total | 12 | Total | 15 |
| THIRD YEAR | IM419 | 3 | | |
| | MN324 | 3 | | |
| | MN356 | 3 | | |
| | PS103 | 3 | | |
| | Total | 12 | | |

Refer to the Undergraduate Bulletin or DegreeWorks for additional graduation requirements (i.e. minimum GPA and coursework) for your program of study.

Revised
4/2/2015