

Computer Technology: Microcomputer Systems Option

Associate of Applied Science (AAS)

Microcomputer Systems Option

Computer technology is an Associate of Applied Science (AAS) option. AAS degrees are traditionally technically focused with some general education requirements. If your interest is in technically-oriented tasks such as designing and implementing computer networks and telecommunication systems, solving manufacturing process and production problems, programming computer numerical control (CNC) machines for automated machine operations, designing computer graphics or designing multimedia projects, then one of the computer technology options might be for you. All of these options transition smoothly into bachelor degree options upon completion.

The Microcomputer systems option is designed to prepare students with background and skills to design, implement and support networked systems in both standard and enterprise settings. It builds a solid foundation in the hardware and architecture of telecommunications networks and systems; operating systems and applications; systems design and analysis; networking theory and solutions; types of networks, including fiber optics and wireless; network management and control; network and flow optimization; network security; configuring and troubleshooting.

Becoming Career Ready...

/ Faculty with relevant industry experience work closely with students by providing them with career-ready practical experience and a technology-based curriculum in the state-of-the-art Otto & Della Seabaugh Polytechnic building.

/ Microcomputer systems graduates work in technology related fields specializing in installation, maintenance, and repair of network infrastructure components such as firewalls, router, switches, wireless and IP telephony. Examples of job titles include IT specialist, Network Specialist, and telecommunication specialist.

/ Students are engaged throughout the Microcomputer Systems curriculum to develop knowledge and professionalism, as well as practical skills, to pursue various career trajectories upon graduation.

/ 100% of Southeast programs offer real-world experience. Microcomputer Systems students earn this experience through valuable hands-on experience through required labs that accompany the technology courses work.

/ The path to a successful career starts with you! You can maximize your career development by working closely with Career Services and Southeast faculty – they are here to help you connect your passions, interests and skills to jobs and opportunities in the field. Career Services provides professional career counseling and coaching, resume critiques, practice interviews, job search strategies, career events, networking opportunities and more.

Career Opportunities:

- Information Technology Specialist
- Network Administrator/Specialist
- Network Manager
- System Administrator
- Telecommunications Specialist
- Technical Specialist

AAS to BS Options

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

- Technology Management: Computer Network systems Administration Option

Transfer and Dual Credit Students

If you have dual credit or transfer credit, please visit our transfer course equivalencies guide at semo.edu/transfercredit.



To learn more
 Office of Admissions
 (573) 651-2590
admissions@semo.edu
semo.edu

To explore
 the College of Science, Technology,
 Engineering and Mathematics
 online, visit
semo.edu/stem

For advising
 Center for Academic Advising
semo.edu/advising

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This is a guide based on the 2019-2020 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 Degree Works to monitor their individual progress.

CURRICULUM CHECKLIST

Computer Technology: Microcomputer Systems – 70 hours

Required Courses:

- EN 100 English Composition I (3)
- OR**
- EN 140 Rhetoric & Critical Thinking (3)
- IM 300 Technical Communications (3)
- IM 301 Industrial Safety Supervision (3)
- IM 419 Industrial Supervision (3)
- MA116 Precalculus A (3)
- MA117 Precalculus B (3)
- MN 260 Technical Computer Programming (3)
- OR**
- CS 155 Computer Science I (4)
- PH 120 Introductory Physics I (5)
- PH 121 Introductory Physics II (5)
- PS 103 U.S. Political Systems (3)
- SC 105 Fundamentals of Oral Communications (3)

Microcomputer Systems option

- ET 160 Basic Electricity & Electronics (3)
- ET 245 Logic Circuits (3)
- TN 255 Microcomputer Maintenance & Troubleshooting (3)
- TN 275 Introduction to Networks (3)
- TN 375 Routing and Switching Essentials (3)
- TN 395 Server Maintenance & Troubleshooting (3)
- TN 425 Wireless Communication & Mobile Data Networks (3)
- TN475 Scaling Networks (3)
- TN 563 Connecting Networks (3)
- Choose 6 hours from:
 - CY 201 Introduction to Cybersecurity (3)
 - IM 317 Industrial Internship (3)
 - TN 435 Network Security (3)

Additional graduation requirement:

- Civics examination

SAMPLE FIVE-SEMESTER PLAN

	Fall Semester		Spring Semester	
	Course #	Hrs	Course #	Hrs
FIRST YEAR	EN100 or EN140	3	ET160	3
	MA116	3	IM300	3
	PH120	5	MA117	3
	TN255	3	MN260 or CS155	3-4
	TN275	3	TN375	3
Total	17	Total	15-16	
SECOND YEAR	ET245	3	IM419	3
	IM301	3	SC105	3
	PH121	5	TN395	3
	TN425	3	TN435	3
	TN475	3	TN563	3
Total	17	Total	15	
THIRD YEAR	IM317 or CY201	3		
	PS103	3		
Total	6			

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