

Careers

Network or computer systems administrators design, install, and support an organization's LAN (local-area network), WAN (wide-area network), network segment, Internet, or intranet system. They provide day-to-day, on-site administrative support for software users, maintain network hardware and software, analyze problems, and monitor the network to ensure availability to system users. They may also plan, coordinate, and implement network security measures.

Salary

Median annual earnings of computer support specialists were \$40,430 in 2004; network and computer systems administrators were \$58,190.

Job Outlook

Computer support specialists and administrators are projected to increase faster than the average through 2014. Job growth will continue as technology continues to improve and become more complex.

Education & Training Options

Montgomery College offers an associate of applied science degree (A.A.S) in network and wireless technologies and certificates in microcomputer technician, network administration, network engineer, and wireless technologies. The A.A.S. is a three-track degree that provides entry-level skills in the fields of wireless, Cisco, and Microsoft.

■ Degree

Graduates complete a comprehensive program preparing them for positions involving client needs assessment, network design, network installation and maintenance, inter-network communication and connectivity, specialized network functions, and on-site network administration. Extensive classroom work and lab experience—mirroring real-world production network scenarios—augment academic instruction.

This curriculum helps prepare students for the Cisco and Microsoft track, CompTIA Network+, the Certified Novell Administrator (CNE) and Cisco Certified Network Associate (CCNA) exams, Microsoft Certified Professional (MCP), and Microsoft Certified Systems Engineer (MCSE) certification exams.

■ Certificate

The certificate curricula are designed for individuals seeking a career change or career advancement.

1. microcomputer technician—This curriculum will allow students to enter the computer technician field at an entry level with a good background in computer configuration and troubleshooting, networks, and electronics.

2. network engineer—This curriculum helps prepare students for the CompTIA A+, CompTIA Network+, Microsoft Certified Professional (MCP), and Microsoft Certified Systems Engineer (MCSE) certification exams. Depending on which electives are taken, it will also help students prepare for the Certified Novell Administrator (CNE) and CISCO Certified Network Associate (CCNA) exams.

3. wireless technologies—This curriculum, incorporating basic electronics and digital electronic devices and communication systems, prepares students to enter the wireless communication system field.

Contact @ MC

Germantown Campus240-567-7805
www.montgomerycollege.edu/Departments/microtec

Network and Wireless Technologies

Degrees, Certificates, and Letters of Recognition

Montgomery College is authorized by the Maryland Higher Education Commission (MHEC) to offer four degrees (associate of arts, associate of science, associate of applied science, and associate of arts in teaching) and certificates. In addition, the College recognizes students who satisfactorily complete certain course sequences with letters of recognition.

Some curricula are offered at all campuses, whereas others are limited to one or two. When a curriculum is offered at a specific campus, it is indicated by G for Germantown, R for Rockville, or TP for Takoma Park/Silver Spring.

Admission to Montgomery College is open to all.

Math, English, and reading assessment tests are required prior to registering. (Some students may be exempt from assessment. Consult the *Montgomery College Catalog* for criteria.) Financial aid and scholarships are available to qualified candidates.

Take the next step.

Complete an Application for Admission form (online @ www.montgomerycollege.edu/admissions/mcadmiss.htm) or call 240-567-5000 for information.

Network and Wireless Technologies: 354

General Education and Other Requirements (23 credit hours)

EN 101	Techniques of Reading and Writing I	3
	English foundation	3
	Health foundation	1
	Mathematics foundation	3
	Speech foundation	3
	Arts or humanities distribution	3
	Behavioral and social sciences distribution	3
	Natural sciences lab distribution	4

Core Requirements (19 credit hours)

NW 127	Microcomputer Control Programs	3
NW 130	Network Cabling Technology	3
NW 140	Microcomputer Configuration and Installation	3
NW 151	Introduction to Networking	3
NW 170	Network Operating Systems	3
NW 173	Network Security	4

Wireless Technologies Track: 354A (19 credit hours)

NW 150	Electronics for Wireless	4
NW 229	Wireless Communications	4
NW 274	Advanced Wireless Communications	4
NW 275	Wireless Security	3
	Technical electives*	4

Total credit hours for wireless technologies track 60

(more)

Network and Wireless Technologies Curricula

(continued)

Microsoft Track (18 credit hours)

Cisco Track: 354C (18 credit hours)

NW 252	Cisco Routers and Routing Basics	3
NW 253	Cisco Router Configuration and Management II	3
NW 254	Cisco Router Configuration and Management III	3
	Technical electives*	9

Total credit hours for Cisco track 60

Microsoft Track: 354B (18 credit hours)

NW 199	Microsoft Windows Client Operating System	3
NW 203	Microsoft Windows Server	3
NW 204	Supporting Microsoft Windows Network Infrastructure	3
NW 205	Implementing and Administering Microsoft Windows Directory Services	3
NW 208	Designing a Microsoft Windows Networking Services Infrastructure	3
	Technical electives*	3

Total credit hours for Microsoft track 60

* Acceptable electives are NW 264 or a combination of two NW courses or one NW course and CA 172.

Microcomputer Technician Certificate (G): 210

NW 127	Microcomputer Control Programs	3
NW 130	Network Cabling Technology	3
NW 140	Microcomputer Configuration and Installation	3
NW 150	Electronics for Wireless	4
NW 170	Network Operating Systems	3
NW 264	Network and Wireless Troubleshooting	4

Total credit hours 20

Network Engineer Certificate (G): 215

Fundamental Requirements (30-31 credit hours)

CS 136	Systems Analysis and Design	3
CS 140	Introduction to Programming	3
NW 127	Microcomputer Control Programs	3
NW 140	Microcomputer Configuration and Installation	3
NW 151	Introduction to Networking	3
NW 170	Network Operating Systems	3

Microsoft Windows System Administrator (MCSA) Track: 215A

NW 199	Microsoft Windows Client Operating System	3
NW 203	Microsoft Windows Server	3
NW 204	Supporting Microsoft Windows Network Infrastructure	3
NW 205	Implementing and Administering Microsoft Windows Directory Services	3

CISCO Certified Network Associate (CCNA) Track: 215B

NW 173	Network Security	4
NW 252	Cisco Routers and Routing Basics	3
NW 253	Cisco Router Configuration and Management II	3
NW 254	Cisco Router Configuration and Management III	3

Select from the following list (6 credits):

CS 216	UNIX Operating System	3
NW 173	Network Security	4
NW 199	Microsoft Windows Client Operating System	3
NW 203	Microsoft Windows Server	3
NW 204	Supporting Microsoft Windows Network Infrastructure	3
NW 205	Implementing and Administering Microsoft Windows Directory Services	3
NW 252	Cisco Routers and Routing Basics	3
NW 253	Cisco Router Configuration and Management II	3
NW 254	Cisco Router Configuration and Management III	3
NW 255	Cisco Advanced Routing	6
NW 256	Cisco Remote Access Networks	4
NW 257	Cisco Multi-layer Switching	4
NW 258	Cisco Internetwork Troubleshooting and Support	4

Total credit hours 36-37

(more)

Network and Wireless Technologies Curricula

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Wireless Technologies Certificate (G): 227

NW 150	Electronics for Wireless	4
NW 170	Network Operating Systems	3
NW 173	Network Security	4
NW 229	Wireless Communications	4
NW 274	Advanced Wireless Communications	4
NW 275	Wireless Security	3

Total credit hours 22