

COMPUTER SYSTEMS TECHNOLOGY

(Cyber Security/Networking)

What is computer systems technology?

Computer Systems Technology covers training in networking; the design and maintenance of, and hardware associated with, computer operating systems. Students will learn techniques to investigate and resolve computer problems. Students also obtain important information to help with cyber security. They will also learn to answer clients' inquiries concerning the use of computer hardware and software. This includes solving problems related to printing, electronic mail, operating systems, trouble shooting communication issues and computer networks.

What you will learn

Students will gain knowledge and skills in:

- Technicians provide assistance and training to system users as well as administer the computer network
- Techniques to investigate and resolve computer problems, both on a client computer and across an entire network
- Troubleshoot and support corporate networks
- Networking, routing (Cisco Levels 1-8)
- Applications (Microsoft Office)
- Operating Systems (Window Server)
- Troubleshoot communications and connectivity issues
- Cyber Security training

Certifications preparing for

CCNA (Cisco Certified Network Associate)
 CCNP (Cisco Certified Network Professional)
 MCSE (Microsoft Certified Systems Engineer)

Type of college degree

- Associate of Applied Science degree (two-year)
- Associate of Science degree (two-year) designed to transfer into four year college
- Certificate of Applied Science (one-year)

Career information

Technical support staff employees work in organizations maintain an in-house MIS function or technical support department. They may also work for universities, public and private school systems, hospitals, financial institutions, retail stores, or any other organization that provides technical support to its employees. Others work for computer companies, including hardware and software firms, as well as on-line service providers. Positions may be found in various businesses across the nation, but predominately in larger metropolitan areas.

Job Outlook and Pay

Median Wage (MT)*	\$60,140 yearly \$28.91 per hour
Median Wage (US)*	\$81,100 yearly \$38.99 per hour

*Bureau of Labor Statistics, Office of Employment Projections; MT Dept. of Labor and Industry, Research and Analysis Bureau (projections through MT 2022 U.S. 2026)

**For more information visit <http://www.careerinfonet.org/Occupations>.

City College entry-level wages of graduates:
\$34,260 (2014-2017)

Computer Systems Technology

(Associate of Applied Science Degree)

Required Courses	Credits
CAPP 156 MS Excel.....	3
COMX 106 Communicating in a Dynamic Workplace.....	3
CSCI 181 Web Design & Programming	3
ITS 166 Configuring MS Windows 10	3
ITS 171 Configuring MS Server 2016.	3
ITS 217 Network Operating System-Server Admin/Apps	3
ITS 224 Introduction to Linux	3
ITS 256 CCNA: Security	3
ITS 257 Introduction to Computer Virtualization	3
ITS 260 CCNP: Routing	4
ITS 264 CCNP 3: Switching.....	4
ITS 280 Computer Repair and Maintenance.....	3
ITS 283 Health Information Networking	3
ITS 284 Network Storage.....	3
M 114 Extended Technical Mathematics.....	3
NTS 104 CCNA 1: Intro to Networks.....	4
NTS 105 CCNA 2: Routing & Switching Essentials.....	4
NTS 204 CCNA 3: Scaling Networks.....	3
NTS 205 CCNA 4: Connecting Networks	3
WRIT 121 Intro to Technical Communication	3
Restricted Elective (Choose from List Below).....	3
Total minimum credits required for certificate and degree.....	67

Restricted Elective Options

CSCI 116 Introduction to Python Programming.....	3
CSCI 211 Client Side Programming.....	3
CSCI 214 Server-Side Web Programming and Administration	3
HIT 101 Introduction to Health Care Informatics	3
ITS 182 Help Desk Support.....	3
^ITS 200 CCNS Exam Prep (<i>Recommended</i>).....	1
ITS 284 Network Storage	3
ITS 291 Special Topics.....	3
ITS 298 Cooperative Education/Internship.....	3

Students should check the course descriptions for required prerequisites.

Suggested Plan of Study

Computer Systems Technology AAS Degree

First Semester	Credits
ITS 166	3
ITS 280	3
M 114.....	3
NTS 104	4
NTS 105.....	4
Total	17

Second Semester	Credits
CAPP 156	3
ITS 171	3
ITS 256	3
NTS 204.....	3
WRIT 121	3
Total	18

Third Semester	Credits
COMX 106	3
ITS 217	3
ITS 224	3
ITS 260	4
NTS 205.....	3
Total	16

Fourth Semester	Credits
CSCI 181	3
^ITS 200	1
ITS 257	3
ITS 264	4
ITS 284	3
Restricted Elective	3
Total	17

Total required68

^Recommended

Cyber Security/Network Technology

(Associate of Science Program of Study)

Required Courses	Credits
General Education Requirements	31
Students should consult with an academic advisor before registering for General Education courses.	
Required Technical Courses	
CAPP 156 MS Excel.....	3
CSCI 116 Introduction to Python Programming	3
ITS 166 Configuring MS Windows 10	3
ITS 171 Configuring MS Server 2016.	3
ITS 256 CCNA Security	3
NTS 104 CCNA 1: Intro to Networks.....	4
NTS 105 CCNA 2: Routing & Switching Essentials.....	4
NTS 204 CCNA 3: Scaling Networks.....	3
Total Technical Courses	26
Restricted Electives selected with advisor approval	3
Total minimum credits required for degree	60
Preparatory course:	
CAPP 120 Introduction to computers.....	3
Restricted Elective Options:	
CAPP 110 Short Courses: MS Outlook	1
CSCI 181 Web Design & Programming	3
ITS 280 Computer Repair and Maintenance.....	3
NTS 205 CCNA 4: Connecting Networks	3

Students should check the course descriptions for required prerequisites.

Suggested Plan of Study AS Plan of Study Networking Technology

First Semester	Credits
General Education.....	13
^CAPP 120.....	3
Total.....	16

Second Semester	Credits
CAPP 110.....	1
General Education.....	15
Total.....	16

Third Semester	Credits
ITS 166.....	3
NTS 104	4
NTS 105	4
General Education.....	3
Total.....	14

Fourth Semester	Credits
ITS 171.....	3
ITS 256.....	3
NTS 204	3
^CAPP 156.....	3
Restricted Electives	4
Total.....	14

Total.....	60
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^Recommended Restrictive
Electives

Networking Technology

(Certificate of Applied Science)

Required Courses	Credits
CAPP 156 MS Excel.....	3
COMX 106 Communicating in a Dynamic Workplace.....	3
ITS 166 Configuring MS Windows 10.....	3
ITS 171 Configuring MS Server 2016.....	3
ITS 256 CCNA Security.....	3
M 111 Technical Mathematics.....	3
NTS 104 CCNA 1: Intro to Networks.....	4
NTS 105 CCNA 2: Routing & Switching Essentials.....	4
NTS 204 CCNA 3: Scaling Networks.....	3
WRIT 104 Workplace Communications.....	3

Total minimum credits required for certificate..... 32

**Students are encouraged to take the industry certifications tests for Cisco and MCSE. .
Please contact our testing center for more information on cost and scheduling.*

Students should check the course descriptions for required prerequisites.

For more information on this City College gainful employment program, such as cost, financial assistance, and placement rates, please go to:

http://www.msubillings.edu/citycollege/programs/gedt2018/network_tech/11.0901-Gedt.html

Suggested Plan of Study

Networking Technology Certificate

First Semester	Credits
ITS 166.....	3
M 111.....	3
NTS 104.....	4
NTS 105.....	4
WRIT 104.....	3
Total.....	17

Second Semester Credits

CAPP 156.....	3
COMX 106.....	3
ITS 171.....	3
ITS 256.....	3
NTS 204.....	3
Total.....	15