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Computer Networking

Program: Computer Information Systems Program Code: CI_CIN Academic Area: Science, Technology, Engineering and Mathematics Type: Associate in Science CIP Code: 52.1201

Program Statement

Students will be prepared for entry-level positions in network administration, IT technical support and related fields. This program combines theoretical knowledge with hands-on practical experience. Students will gain a solid foundation in the principles of computer networking, including server management, network design, network security, implementation, and troubleshooting. Through hands-on exercises and real-world projects, students will apply their knowledge in configuring servers, routers and other network devices commonly used in industry settings.

Program Information

- Students are required to complete 13 program courses and 8 general courses for a total of 62 credits to complete degree requirements.
- All students must complete General Education Requirements, which are infused through the program and general courses.
- Students with CompTIA A+, Network+ and Security+, can receive credit for prior learning for EGR 133, CIS 134, and CIT 150, respectively.
- Students who have earned credit at other institutions may be able to obtain transfer credit. Transfer credit approval for any Computer Information Systems (CIS or CIT) course must be approved by the Department Chair or by a full-time faculty member in the department.
- Bristol Community College is a licensed partner with CompTIA, Cisco Networking Academy, and AWS Academy. Bristol students can purchase test vouchers and prep materials at a discounted price.

After Bristol

- This program prepares students for high-demand careers as information security professionals in various organizations.
- If you plan to transfer to a four-year institution, visit Transfer Services. Speaking to an advisor at least one year in advance is recommended to plan your transfer path.

Degree Requirements



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General Courses

Course #	Title	Credits
BUS 115	Fundamentals of an Enterprise	1
ENG 101	Composition I: College Writing	3
ENG 102	Composition II: Writing about Literature	3
MTH 131	Elements of College Mathematics	3
	COM 104 or COM 114	3
	HST 111, 112, 113 or 114	3

General Electives

Title	Credits
CIS Ethical Dimensions Elective	0-3
CIS Global and Historic Awareness Elective	0-3
CIS Multicultural and Social Perspectives Elective	0-3
Multicultural and Social Perspectives Elective	3
Science Elective	3-4
	CIS Ethical Dimensions Elective CIS Global and Historic Awareness Elective CIS Multicultural and Social Perspectives Elective Multicultural and Social Perspectives Elective

Program Courses

Course #	Title	Credits
CIS 106	Operating System Scripting	1
CIS 120	Programming: Logic, Design and Implementation	3
CIS 121	Operating Systems	3
CIS 131	Windows Server Administration I	3
CIS 132	Introduction to UNIX/Linux and Shell Programming	3
CIS 133	Unix/Linux System Administration I	3
CIS 134	Networking Technologies	4
CIS 231	Windows Server Administration II	3
CIS 232	Unix/Linux System Administration II	3
CIS 233	Routing and Router Configuration	4
CIS 271	Network Installation and Configuration Seminar	4
CIT 150	Cybersecurity Principles	3
EGR 133	Computer Configuration and Repair	4



Recommended Course Sequence - Semester 1

Course #	Title	Credits
CIS 120	Programming: Logic, Design and Implementation	3
CIS 121	Operating Systems	3
ENG 101	Composition I: College Writing	3
MTH 131	Elements of College Mathematics	3
	HST 111, 112, 113 or 114	3

Recommended Course Sequence - Semester 2

Course #	Title	Credits
CIS 106	Operating System Scripting	1
CIS 131	Windows Server Administration I	3
CIS 132	Introduction to UNIX/Linux and Shell Programming	3
CIS 134	Networking Technologies	4
ENG 102	Composition II: Writing about Literature	3
BUS 115	Fundamentals of an Enterprise	1

Recommended Course Sequence - Semester 3

Course #	Title	Credits
CIS 133	Unix/Linux System Administration I	3
CIS 231	Windows Server Administration II	3
EGR 133	Computer Configuration and Repair	4
CIS 233	Routing and Router Configuration	4
	Science Elective	3-4

Recommended Course Sequence - Semester 4

Title	Credits
Unix/Linux System Administration II	3
Network Installation and Configuration Seminar	4
Cybersecurity Principles	3
COM 104 or COM 114	3
Program Elective	3
Total credits:	63-73
	Unix/Linux System Administration II Network Installation and Configuration Seminar Cybersecurity Principles COM 104 or COM 114 Program Elective



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Category Descriptions

<u>COM 104 or COM 114</u>

Credits: 3

Choose one of the following:

Course #	Title	Credits
COM 104	Fundamentals of Public Speaking	3
COM 114	Professional Speaking	3

HST 111, 112, 113 or 114

Credits: 3

Choose one of the following:

Course #	Title	Credits
HST 111	The West and the World I	3
HST 112	The West and the World II	3
HST 113	United States History to 1877	3
HST 114	United States History from 1877	3

<u>CIS Ethical Dimensions Elective</u>

Credits: 0-3

Choose an <u>Ethical Dimensions</u> elective.

CIS Global and Historic Awareness Elective

Credits: 0-3

Choose a <u>Global and Historic Awareness</u> elective.

<u>CIS Multicultural and Social Perspectives Elective</u></u>

Credits: 0-3

Choose a <u>Multicultural and Social Perspectives</u> elective.



Multicultural and Social Perspectives Elective

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Credits: 3

Choose one <u>Multicultural and Social Perspectives</u> elective.

Science Elective

Credits: 3-4

Choose one <u>MassTransfer</u> Science elective.