

CYBERSECURITY AND NETWORK ADMINISTRATION (AAS)

(104 credits)

Program Description

Are you passionate about technology? Do you understand the importance of the security of your devices and data? By studying Cybersecurity & Network Administration, you can earn a competitive salary, immerse yourself in a rapidly-changing tech industry, and turn your talents into a career demanded by a growing number of workplaces across several industries.

Coursework begins with an introduction to networking, client/server operating systems and computer hardware. A steady progression follows to more advanced subject matter in these areas, with additional emphasis on securing both wired and wireless networks, and a focus on ethical hacking.

The Cybersecurity Program is designed for persons interested in operating, maintaining and troubleshooting computer networks with an emphasis on security. The program prepares students for positions in network technical support, utilizing security tools and procedures. This program is for students interested in a pathway into the cybersecurity field. It helps to prepare the student for the A+, N+, Security+, CySA+, PenTest+Cisco certifications, and Microsoft certifications.

Career Opportunities

Job opportunities can be found in both public and private sectors. Students who earn their AAS degree will be exposed to current tools and techniques for implementing solutions for customers in networked environments. The continuing advancement of technology creates a demand for skilled technicians who can provide immediate support in these areas. Cyber Security Technician, Network Administrator and Desktop Support Technician.

- Network Administrator
- Information Security Analyst
- Computer Network Architect

Outcomes

South Puget Sound Community College believes that all students need to develop a broad range of abilities that will not only make them more effective in their professional pursuits but will enhance their capacity to relate well to others in their daily lives.

- Utilize applied skills with fundamental concepts, using industry standard security tools to secure computer and server networks, achieve design, planning, deployment and management goals where systems related technology and services are employed
- Design, implement and troubleshoot a variety of network topologies (both wired and wireless) and protocols with specific expertise in Cisco and Microsoft network and server products

- Demonstrate clear and concise communication including the ability to communicate highly technical information to a non-technical audience made up of a variety of stakeholders through the use of oral and written forms
- Demonstrate an understanding of industry related logic and statistical analysis used to achieve results where configuration and troubleshooting of IT security systems is required
- Practice and apply appropriate ethical and legal standards and mandates reflecting the most current laws and regulations in regard to designing, implementing, and testing security systems/processes
- Demonstrate the ability to participate in globally diverse team environments while engaged in technical projects

The SPSCC college-wide abilities are embedded into each program:

- Effective Communication
- Information Literacy
- Analytical Reasoning
- Multicultural Awareness
- Social Responsibility

Courses by Quarter

Code	Title	Credits
Option 1: DAY		
Quarter 1		
Transition Studies		
Quarter 2		
CNA 113	PC Operating Systems	5
MATH 101	Technical Mathematics I	5
ENGL 090	Integrated Reading and Writing I	5
or ENGL 095	Integrated Reading and Writing II	
CCS 101	Pathways to Success	3
Quarter 3		
CNA 100	Introduction to Networking	5
CNA 112	PC Workstation Technical Support	5
ENGL 098	Transitional English Composition	5
or ENGL& 101	English Composition I	
Quarter 4		
CNA 101	Cisco I	5
CNA 121	Microsoft Workstation	5
CNA 120	Command Line Interface	5
Quarter 5		
CNA 150	Cisco II	5
CNA 197	Intro to Ethical Hacking	5
Select one of the following:		
KINS 150	Intro to Adaptive Physical Activity: Diversity	5
PSYC 116	Psychology of Human Relations: Diversity	5
CMST& 210	Interpersonal Communication: Diversity	5
CMST& 240	Intercultural Communication: Diversity	5
HUM 121	Multicultural America: Diversity	5
Quarter 6		
CNA 251	Cisco III	5
CNA 210	Introduction to Network Security	5

CNA 122	Microsoft Server	5
Quarter 7		
CNA 130	Introduction to Linux/Unix	5
CNA 256	Python for Cybersecurity	5
CNA 221	Windows Server Administration	5
Quarter 8		
CNA 285	Cisco Cybersecurity	5
CNA 296	Managing Network Environments	3
CNA 234	Windows Server Services	5
CNA 290 - Cooperative Work Experience/Internships ¹		3

Code Title Credits
Option 2: Evening/Weekend

Quarter 1

Transition Studies

Quarter 2

CCS 101	Pathways to Success	3
MATH 101	Technical Mathematics I	5
ENGL 090 or ENGL 095	Integrated Reading and Writing I Integrated Reading and Writing II	5

Quarter 3

CNA 112	PC Workstation Technical Support	5
CNA 113	PC Operating Systems	5
ENGL 098 or ENGL& 101	Transitional English Composition English Composition I	5

Quarter 4

CNA 100	Introduction to Networking	5
CNA 120	Command Line Interface	5
Select one of the following:		5

KINS 150	Intro to Adaptive Physical Activity: Diversity
PSYC 116	Psychology of Human Relations: Diversity
CMST& 210	Interpersonal Communication: Diversity
CMST& 240	Intercultural Communication: Diversity
HUM 121	Multicultural America: Diversity

Quarter 5

CNA 101	Cisco I	5
CNA 122	Microsoft Server	5
CNA 121	Microsoft Workstation	5

Quarter 6

CNA 150	Cisco II	5
CNA 221	Windows Server Administration	5

Quarter 7

CNA 251	Cisco III	5
CNA 234	Windows Server Services	5
CNA 210	Introduction to Network Security	5

Quarter 8

CNA 285	Cisco Cybersecurity	5
CNA 130	Introduction to Linux/Unix	5
CNA 256	Python for Cybersecurity	5

Quarter 9

CNA 296	Managing Network Environments	3
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CNA 197	Intro to Ethical Hacking	5
CNA 290 - Cooperative Work Experience/Internships ¹		3

¹ Must be arranged through the Program Coordinator for Co-op Work Experience / Internships

Some courses may be offered in a different quarter on a Tues/Thurs evening + Saturday morning - afternoon schedule.

Pathway Maps

South Puget Sound Community College has provided pathways and associated recommended courses for ease of student selection based upon a student's career interest. Please review the pathway maps for required and recommended courses.

Cybersecurity and Network Administration Pathway Map (Day*)

Associate in Applied Science

104 Credits

Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 5	Qtr. 6	Qtr. 7	Qtr. 8
Transition Studies	CNA 113 (Scr) PC Operating System Summer, Fall only	CNA 100 (Scr) Introduction to Networking Fall, Winter only	CNA 101 (Scr) Cisco I Winter, Spring only	CNA 150 (Scr) Cisco I Spring only	CNA 251 (Scr) Cisco II Fall only	CNA 130 (Scr) Introduction to Linux/Unix Fall, Winter only	CNA 285 (Scr) Cisco Cybersecurity Spring only
	MATH 101 (Scr) Technical Mathematics I Or higher	CNA 112 (Scr) PC Workstation Technical Support	CNA 121 (Scr) Microsoft Workstation Winter only	CNA 197 (Scr) Intro to Ethical Hacking Spring only	CNA 210 (Scr) Introduction to Network Security Fall only	CNA 256 (Scr) Python for Cybersecurity Winter only	CNA 234 (Scr) Managing Network Environments Spring only
	ENGL 090 (Scr) Integrated Reading and Writing I ENGL 095 (Scr) Integrated Reading and Writing II	ENGL 098 (Scr) Transitional English Composition ENGL& 101 (Scr) English Composition I	CNA 120 (Scr) Command Line Interface Winter, Spring only	Choose One (Scr): (Human Relations / Diversity, recommended) KINS 150 (Scr) Intro. to Adaptive Physical Activity: Diversity PSYC 116 (Scr) Psychology of Human Relations: Diversity CMST& 210 (Scr) Interpersonal Communication: Diversity CMST 240 (Scr) Intercultural Communication: Diversity HUM 121 (Scr) Multicultural America: Diversity	CNA 122 (Scr) Microsoft Server Fall, Spring only	CNA 221 (Scr) Windows Server Administration Fall, Winter only	CNA 234 (Scr) Managing Network Environments Spring only
	CCS 101 (Scr) Pathways to Success						CNA 290 (Scr) Cooperative Work Experience/Internships Must be arranged through the Program Coordinator for Co-op Work Experience / Internships

*Some courses may be offered in a different quarter on a Tues/Thurs evening + Saturday morning - afternoon schedule.

Revised 2/4/2024 South Puget Sound Community College

Cybersecurity and Network Administration Pathway Map (Evening/Sat*)

Associate in Applied Science

104 Credits

Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 5	Qtr. 6	Qtr. 7	Qtr. 8	Qtr. 9
Transition Studies	CCS 101 (Scr) Pathways to Success	CNA 112 (Scr) PC Workstation Technical Support Fall only	CNA 100 (Scr) Introduction to Networking Winter only	CNA 101 (Scr) Cisco I Spring only	CNA 150 (Scr) Cisco II Summer only	CNA 251 (Scr) Cisco III Fall only	CNA 285 (Scr) Cisco Cybersecurity Essentials Winter only	CNA 296 (Scr) Managing Network Environments Spring only
	MATH 101 (Scr) Technical Mathematics I Or higher	CNA 113 (Scr) PC Operating System Fall only	CNA 120 (Scr) Command Line Interface Winter only	CNA 122 (Scr) Microsoft Server Spring only	CNA 211 (Scr) Windows Server Administration Summer only	CNA 234 (Scr) Windows Server Services Fall only	CNA 130 (Scr) Introduction to Linux/Unix Winter only	CNA 197 (Scr) Intro to Ethical Hacking Spring only
	ENGL 090 (Scr) Integrated Reading and Writing I ENGL 095 (Scr) Integrated Reading and Writing II	ENGL 098 (Scr) Transitional English Composition ENGL& 101 (Scr) English Composition I	Choose One (Scr): (Human Relations / Diversity, recommended) KINS 150 (Scr) Intro. to Adaptive Physical Activity: Diversity PSYC 116 (Scr) Psychology of Human Relations: Diversity Interpersonal Communication: Diversity CMST& 210 (Scr) Intercultural Communication: Diversity CMST 240 (Scr) Intercultural Communication: Diversity HUM 121 (Scr) Multicultural America: Diversity	CNA 121 (Scr) Microsoft Workstation Spring only		CNA 210 (Scr) Introduction to Network Security Fall only	CNA 256 (Scr) Python for Cybersecurity Winter only	CNA 230 (Scr) Cooperative Work Experience/Internships Must be arranged through the Program Coordinator for Co-op Work Experience / Internships

*Some courses may be offered in a different quarter on a Tues through Friday morning - afternoon schedule.