

# NETWORK SECURITY ADMINISTRATION (AAS)

## Associate of Applied Science

### Career-Technical Program

#### Interest Areas:

#### Business Admin. and Management

This Network Security Administration Associate of Applied Science program will prepare students for a career in the cybersecurity industry. The technical courses in this A.A.S degree program combine both networking concepts and security fundamentals with a focus on best practices required to implement and administer secure network environments. The program integrates knowledge from communication, social sciences, and math with the theory and practice of information technology to prepare students for employment in the industry. It will also provide opportunities for those employed in the information technology field to enhance their knowledge and credentials and advance in their careers.

During the program students are encouraged to work toward a variety of industry certifications in addition to the degree. Students will graduate with a Network Security Administration Associate of Applied Science Degree upon successful completion of this program. Entry-level position responsibilities in cybersecurity include, but are not limited to: maintaining computer network infrastructure and security; securing computer assets connected to the Internet; installing, configuring and securing PC systems and mobile devices; configuring and securing remote access networks; providing technical support and configuring and repairing endpoint devices.

Career opportunities for CyberSecurity professionals are varied and immediate. The National Initiative for CyberSecurity Education (NICE) has identified dozens of job titles that require security skills (see [www.csrc.nist.gov/nice/framework/](http://www.csrc.nist.gov/nice/framework/)). Additionally, projections are that by the end of the decade, all or nearly all intermediate level computer technical, developmental or implementation careers will require some level of security training.

**This is a selective enrollment program. Successful completion of each semester or permission of the instructor is required to continue to the next semester. Successful completion of the technical certificate or permission of the instructor is required for enrollment in third and fourth semester courses.**

Program Website ([https://www.nic.edu/programs/viewprogram.aspx?program\\_id=109](https://www.nic.edu/programs/viewprogram.aspx?program_id=109))

## Program Requirements

Course	Title	Credits
<b>Semester 1</b>		
CITE-118	Computer Information Technology Essentials	2
CITE-121	Network Support I	3
CITE-122	Network Support I Projects	3
CITE-124	TCP/IP Fundamentals	2

ENGL-101	English Composition	3
GEM 3 - A.A.S. Mathematical Ways of Knowing		3-5
Credits		16-18

### Semester 2

CITE-142	Information Security Fundamentals	3
CITE-155	Linux Essentials	3
CITE-213	Network Support II	3
CITE-215	Network Support II Projects	3
COMM-101	Introduction to Speech Communication	3
Credits		15

### Semester 3

CITE-165	Linux System Administration	3
CITE-235	Network Security Fundamentals	3
CITE-243	Command Line and Scripting Fundamentals	3
CITE-275	Intrusion Detection/Prevention Systems Fundamentals	3
GEM 6 - A.A.S. Social and Behavioral Ways of Knowing		3
Credits		15

### Semester 4

CITE-104	Systems Administration I	3
CITE-105	Systems Administration I Projects	3
CITE-237	Ethical Hacking and Systems Defense	3
CITE-239	Network Forensics Incident Response	3
A.A.S. Institutionally Designated		3
Select one of the following:		2-3
ATEC-117	Occupational Relations and Job Search	
CITE-289	Cyber Competitions	
CITE-296	Cybersecurity Internship	
Credits		17-18
Total Credits		63-66

### Course Key



GEM



WCHE



AAS



Gateway



Milestone

Institutionally  
Designated

## Program Outcomes

Upon completion of the program, students will be able to:

- Evaluate various network devices and media and how best to secure them.
- Determine the factors involved in developing a secure information technology strategy.
- Describe and identify common security threats and attacks and describe how to safeguard against them.
- Perform a vulnerability assessment on a network.
- Monitor and analyze multiple sources of data to identify changes in circumstances or events.
- Access a computer system's security vulnerabilities using appropriate resources.
- Apply software patches to operating systems and applications.
- Explain how to use current forensic tools.
- Use standard software tools to detect attempted security breaches of computer systems. Implement computer network security defenses.

## 2 *Network Security Administration (AAS)*

- Demonstrate sensitivity to and sound judgment on ethical issues as they arise in information security and cyber defense.
- Demonstrate professionalism through acceptable attitude, organization and time management skills, and attire.

In addition to the program outcomes, students will meet the following North Idaho College General Education (GEM) Requirements: Written and Oral Communication; Mathematical Ways of Knowing; Social and Behavioral Ways of Knowing; and an additional program-designated or selected course from any of the GEM requirements.