

# CYBERSECURITY AND INFORMATION TECHNOLOGY

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## Program Description

This degree program provides a solid cybersecurity backing to information technology (IT) tasks. Classes focus on best practices to implement, administer, and secure the technologies used to process, transmit, and store data. Graduates gain hands-on experience securing network communications, configuring virtualization, managing cloud-based resources, and performing other common security-related tasks while administering daily IT operations.

These practical IT experiences are constructed using continual feedback from local, regional, and global cybersecurity practitioners. This assessment ensures students learn modern IT practices and receive the latest in cybersecurity education. Upon graduation, students are ready to use their knowledge and skills in the workforce of today and tomorrow.

The curriculum contains core classes in firewall implementation, virtualization, cloud computing, networking, incident response, and data security. Students may have the opportunity to earn college credit through cooperative education or internship opportunities.

Flexible course delivery allows students to take classes using cutting-edge learning technologies. All classes in this program may be completed via:

- Remote learning through synchronous classes (live online classroom environments)
- Remote learning through asynchronous classes (traditional online class environments)
- Local learning through on-campus classes (physical classroom environments)

## Program Certificate Options

Security and Hacking  
Computer Networking  
Offensive and Defensive Security  
Modern Computing Technologies  
Secure Programming

## Preparation

Students enrolling in the Cybersecurity and Information Technology BAS program must have earned an Associate in Applied Science or Associate in Science degree in an IT-related program from a regionally accredited institution. Previous college coursework, along with industry experience and/or military training, may be considered to determine eligibility.

## Program Requirements

Students are required to have their own modern computers while completing classes in the program. On-campus students will need a laptop for class use, while online students may use a laptop or desktop system. Minimum computer specifications can be found at <https://bismarckstate.edu/cybersecurity/become-a-student/computer-requirements/>.

Students who complete the Cybersecurity and Information Technology curriculum requirements earn a Bachelor of Applied Science degree.

## Career Opportunities

Upon completion of the program, students are equipped to work in Information Technology & Cybersecurity departments for countless organizations, as well as find employment in Security Operation Centers (SOCs) and Network Operation Centers (NOCs). It is an opportune time to be involved in the IT security industry, as nationwide research shows nearly two million cybersecurity jobs go unfilled due to lack of qualified applicants.

Career opportunities: Information Security Analyst, Network Security Analyst, Computer Systems Analyst, Systems Administrator, Security Administrator, Network Administrator, Data Security Administrator, Computer and Information Systems Manager.

## Contact

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## Degree Plans

- Cybersecurity and Information Technology Bachelor of Applied Science