CYBERSECURITY AND INFORMATION TECHNOLOGY

Overview

Degrees Offered: BAS
Program Begins: Fall, Spring, Summer
Delivery Method: Online, On Campus
Phone: 701-224-2429
Email: bsc.cet@bismarckstate.edu

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)

Certificate Options

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

Preparation

This program is designed to allow a student to be admitted as either a transfer applicant or as a direct enrolled applicant. Refer to the Program Admission (p. 2) tab page for Direct Enrollment information.

Students enrolling in the Cybersecurity and Information Technology BAS program as a transfer applicant may have earned an associate in applied science or associate in science degree in an IT-related program from an accredited institution recognized by Bismarck State College. Previous college coursework, along with industry experience and/or military training, may be considered to determine eligibility.

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 the Computer Requirements webpage.

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 and 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 millions of 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.

College Admission

Review BSC's How to Apply page and complete the college admission requirements.

Program Admission

The Bachelor of Applied Science in Cybersecurity and Information Technology is designed for qualified students to be directly admitted.

In addition to being admitted to BSC, students must meet program requirements based on their status:

First-Year Applicant

A student who has no prior postsecondary experience or who has earned less than 24 semester credits or 36 quarter credits. Students who earned college credits while still in high school are considered first-year applicants.

Students must apply and be accepted at BSC as degree seeking, in addition to the following requirements:

1. Minimum high school cumulative grade point average – 2.00+
2. Completion of high school core course requirements:
    a. English: four units
    b. Mathematics: Algebra I or above – three units
    c. Laboratory Science: three units
    d. Social Science: three units

Notes:

- Successful completion of a GED exam meets the qualifications for both #1 and #2 above.
- Applicants 25 years of age or older on the first day of class are exempt from the high school core requirements.
- Students who don't meet requirements #1 and #2 will begin their college career in Cybersecurity and Computer Networks AAS.
- After the completion of one semester of BSC enrollment with a 2.00 cumulative GPA, a student may request a program change into the Cybersecurity and Information Technology Bachelor of Applied Science program.

Transfer Applicant

A student who has earned 24 semester credits or 36 quarter credits from an accredited post-secondary institution.

Students must apply and be accepted at BSC as degree seeking, in addition to the following requirements:

1. Cumulative grade point average – 2.00+ on all accredited post-secondary institutions attended.
2. Student must not be on dismissed or suspension status at their most recently attended institution.

Notes:

- Students who don't meet requirements #1 and #2 will begin their college career in Cybersecurity and Computer Networks AAS.
- After the completion of one semester of BSC enrollment with a 2.00 cumulative GPA, a student may request a program change into the Cybersecurity and Information Technology Bachelor of Applied Science program.

Returning Applicant

Returning to BSC following a break in enrollment or graduation.

Students must apply and be accepted at BSC as degree seeking, in addition to the following requirements:

1. Cumulative grade point average – 2.00+ on credits from all prior accredited post-secondary institutions attended, including BSC.
2. Student must not be on dismissed or suspension status.

Notes:

- Students who don't meet requirements #1 and #2 will begin their college career in Cybersecurity and Computer Networks AAS.
- After the completion of one semester of BSC enrollment with a 2.00 cumulative GPA, a student may request a program change into the Cybersecurity and Information Technology Bachelor of Applied Science program.

Degree Plans

- Cybersecurity and Information Technology Bachelor of Applied Science

Program Learning Outcomes

Upon graduation, Cybersecurity and Information Technology students will be able to:

- Use and secure database systems.
- Solve problems by writing scripts or developing code.
- Implement network security mechanisms.
- Test for security vulnerabilities.
- Execute common tasks associated with typical daily IT operations.