

Bachelor of Science in Cyber Security

Chair, Department of Continuing Studies: Mark L. Parker
Program Manager: Henry Collier

The Bachelor of Science in Cyber Security program (BSCS) is a degree-completion program designed for military, government, and private sector professionals who seek to complete their bachelor's degree in the information technology field and who want to further their careers by developing specialized skills in the high-need area of network security. The program offers a solid foundation of cyber security courses as well as two concentration areas of study:

- Computer Forensics and Vulnerability Management
- Information Warfare and Security Management

The cyber security curriculum balances general education and core cyber security courses (many of which can be fulfilled through transfer credits) with elective and project-based courses that allow students to delve into sub-areas such as national security policy, offensive and defensive information warfare, penetration testing, and malware forensics. All courses are designed to hone foundational skills in critical thinking, research and analysis, ethical decision-making, and oral and written communications.

Students entering the cyber security program must transfer a minimum of 30 credits to be admitted to the program and may transfer as much as 84 credits to satisfy the degree requirement. Basic networking, programming and operating systems knowledge acquired through prior coursework, certifications, or military training is required for entry into the degree program.

Curriculum Requirements

Pre-Program Education and Training

Students accepted into the Cyber Security degree program must have earned a minimum of 30 semester credits from college courses, military training, or other educational experiences such as CLEP tests. A maximum of 90 semester credits may be transferred into the program. Basic networking, programming and operating systems knowledge acquired through prior coursework, certifications, or military training is required for entry into the degree program.

Students are required to earn a grade of C in core, concentration, and capstone courses. Students are required to meet general education requirements in literature, history, arts and humanities, science, social science, and math and may do so by transfer credit or enrollment in courses such as ENGL 250, HIST 310, PHLS 205, SCIE 202, SCIE 301, SOCI 335, and MATH 232.

Core Courses

CYBR 201	Fundamentals of Computer Networking	3
CYBR 210	Computer Programming with a High Level Language	3
CYBR 215	Computer Programming with a Low Level Language	3
CYBR 220	Windows Server Administration	3
CYBR 225	Linux Administration	3
CYBR 230	Relational Databases with SQL	3
PHLS 210	Ethics in the Modern World	3
CJ 341	Cyber Law and Cyber Crime	3
IA 340	Introduction to Information Assurance	3
IA 342	Management of Information Assurance	3
COMM 301	Business & Professional Writing	3
MNGT 309	Mngt of Organizations	3
Total Cr.		36

Concentrations

Students in the BSCS program are required to complete one of the following concentrations:

Computer Security Vulnerability and Management Concentration

CJ 442	Introduction to Computer Forensics	4
DF 311	Network Forensics	3
DF 312	Malware Forensics	3
DF 411	Cyber Investigation	3
CYBR 320	Vulnerability Testing I	3
CYBR 420	Vulnerability Testing II	3
Total Cr.		19

Information Warfare Concentration

CYBR 370	Introduction to Information Warfare	3
CYBR 380	Offensive Information Warfare	3
CYBR 382	Defensive Information Warfare	3
CS 407	Politics of Cyberspace	3
POLS 302	National Security Policy	3
CYBR 410	Systems Assurance	3
Total Cr.		18

Capstone

The capstone course, CYBR 400 (6), is the culminating academic activity for BSCS students. In it, students propose, develop, and deliver a final substantive research project that combines the general knowledge acquired in the core courses with the specific knowledge of the concentration. The final project requires students to draw upon at least two different academic disciplines for research methodology, seminal literature and sources, and intellectual frameworks in order to bring an interdisciplinary perspective to the subject. The capstone course may not be fulfilled through transfer credit.

Faculty Member	Institution at which highest degree was earned
Henry Collier, MS (Program Manager)	Champlain College
Matthew Bambrick, MS	Norwich University
Matthew Chase, MBA	Nova Southeastern University
Adam Duby, MS	Nova Southeastern University