

CYBERSECURITY FIVE-YEAR ACCELERATED DEGREE BACHELOR OF SCIENCE AND MASTER OF SCIENCE PROGRAM

A five-year degree program is offered in Cybersecurity at Fairfield University's School of Engineering and Computing, leading to a Bachelor of Science in Computer Science and a Master of Science in Cybersecurity. This program embraces the educational objectives of the BS in Computer Science program, as well as those of the graduate program in Cybersecurity.

A degree in cybersecurity is more important than ever in today's digital world. With cyber threats evolving rapidly, organizations across all industries require skilled professionals to protect sensitive information, secure their networks, and defend against cyberattacks. Graduates of the program master the technical expertise, tools, and theoretical understanding needed to address modern cyber threats. Moreover, information security products and services are rapidly increasing, and cybersecurity jobs are predicted to grow seven times faster than the national average job growth.

Students from the BS in Computer Science

Students having achieved a 3.0 GPA, may apply to the Master's degree program at the end of their third year. Students follow the standard undergraduate curriculum for the first three years, and then complete the BS baccalaureate degree requirements (127 credits) during their fourth year while taking up to two graduate courses. Two graduate courses (6 credits) taken during the fourth year may be applied towards both the bachelor's and the master's degree requirement. After receiving the baccalaureate degree, students will take an additional eight courses (for a total of ten courses) to complete the MS degree requirements in the fifth year. This accelerated degree is expected to be completed in five years without interruption.

Technical Concentration

SWEG 5335	Digital Forensics
SWEG 5349	Cloud Computing
SWEG 5420	Systems Security

Electives Courses

SWEG 5301	Software Engineering Methods
SWEG 5302	Software Design Methods
SWEG 5322	Visual Analytics
SWEG 5355	Artificial Intelligence
SWEG 5360	Machine Learning
SWEG 5521	Information Visualization
SWEG 6461	Pattern Recognition
SWEG 6518	Data Mining and Business Intelligence
SWEG 6596	Network Routing and Switching

Capstone Sequence

SWEG 6961	Capstone Professional Project I	3
SWEG 6962	Capstone Professional Project II	3
Total Credits		152

¹ Requirements are the same as those for the BS in Computer Science.

Includes six graduate course credits taken during the fourth year that are applied towards both the undergraduate and master's degree requirements.

² Electives may be chosen from courses listed, SWEG 5990 Independent Study, or any other graduate-level course from a concentration or another area, under advisement of the academic advisor and department chair.

Note: A minimum of 30 credits must be completed at the graduate level.

Requirements

Code	Title	Credits
All Requirements for BS in Computer Science ¹		127
Required Courses		
SWEG 5530	Introduction to Information Security	3
SWEG 6404	Network Security	3
SWEG 6530	Applications and Data Security	3
SWEG 6599	Ethical Hacking	3
Concentration Courses		
Complete two courses in one of the following concentration areas:		6
Management Concentration		
SWEG 5317	Computational Statistics for Biomedical Sciences	
SWEG 5440	Vulnerability Management	
SWEG 6448	Server Management	