Cybersecurity Graduate Programs

College of Engineering and Technology

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Cybersecurity Graduate Programs

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Utah Valley University offers post-baccalaureate programs in Cybersecurity for students who wish to complete advanced studies in the field of cybersecurity. These programs are designed to provide students with advanced technical and managerial knowledge of cybersecurity, preparing them for senior technical and leadership roles in the field. Coursework includes a balanced approach, combining critical analysis of cybersecurity theory with hands-on education for essential applied cybersecurity techniques and tools.
Cybersecurity Graduate Certificate
The Cybersecurity Graduate Certificate program consists of 18 credits of graduate-level courses. The curriculum includes cybersecurity operations, advanced network defense, cybersecurity management, case studies, secure coding, ethical hacking, and the legal and privacy implications of cybersecurity.

Master of Science in Cybersecurity

The Master of Science in Cybersecurity builds on the curriculum for the Cybersecurity Graduate Certificate and includes 12 additional credits including topics, such as advanced penetration testing, reverse engineering, and advanced network forensics. The program culminates with a capstone project where students showcase their skills and abilities.

Admission Requirements

Potential students must apply for admission into these programs. To be accepted, students must have completed a Bachelor's degree, preferably in Information Systems, Information Security, Information Technology, or Computer Science. However, applicants who have a Bachelor's degree in another field may be admitted to the programs if they also have at least two years of IT or cybersecurity industry experience and have completed undergraduate courses in data communication, programming, and servers.

Cybersecurity Advisory Board

- Dan Anderson, Consultant, Spectra
- Vance Checketts, High-Tech COO, Dell EMC2
- David Glod, VP of Information Security, Mountain America Credit Union
- Gary Glover, Director of Security Assessments, SecurityMetrics, Inc.
- Steve Leyba, Service Area Director, Department of Workforce Services
- Angela Madsen, Operations Manager, Department of Workforce Services
- Robert Schroader, President, CEO, Paraben Corporation
- Justin Searle, Managing Partner, UtiliSec

Tuition Tables

Graduate Certificate in Cybersecurity
Master of Science in Cybersecurity

FACULTY

HAMDAN, Basil *Assistant Professor*

JORGENSEN, Robert M. *Assistant Professor*

Degrees & Programs

Cybersecurity, Graduate Certificate

Requirements

The Graduate Certificate in Cybersecurity at Utah Valley University is a post-baccalaureate program for students who wish to complete advanced studies in the field of cybersecurity. This program is designed to provide students with advanced technical and managerial knowledge of cybersecurity, preparing them for senior technical and leadership roles in the field. Coursework includes a balanced approach, combining critical analysis of cybersecurity theory with hands-on education for essential applied cybersecurity techniques and tools.
The program takes two semesters to complete the 18 credits of graduate level courses. Courses include cybersecurity operations, advanced network defense, cybersecurity management, case studies, secure coding, ethical hacking, and the legal and privacy implications of cybersecurity.

To be successful, students should have a strong background in technology. Students should have completed undergraduate work in a related field or have applicable work experience. For those who do not meet this requirement, select undergraduate courses are available to provide the foundational knowledge needed. Please contact the academic advisor for more information.

Total Program Credits: 18

Matriculation Requirements:			
1. Application for admission to the program. 2. Bachelor's degree required, preferably in Information Systems, Information Security, Information Technology, or Computer Science. 3. 2 years of IT or IT security industry experience (if Bachelor's degree in non-related field). 4. Completion of undergraduate courses in data communication, programming, and servers.			
Discipline Core Requirements:			12 Credits
	IT 6300	Principles of Cybersecurity	3
	IT 6330	Cybersecurity Operations	3
	IT 6350	Law, Ethics, and Privacy in Cybersecurity	3
	IT 6370	Penetration Testing and	3

		Vulnerability Assessment	
Elective Requirements:			6 Credits
Choose 6 credits from the following:			6
	IT 6660	Advanced Network Forensics (3.0)	
	IT 6740	Advanced Network Defense and Countermeasures (3.0)	
	IT 6760	Case Studies in Cybersecurity (3.0)	
	IT 6770	Cybersecurity Management (3.0)	
	IT 6780	Secure Coding (3.0)	
	or other departmental approved electives		

Graduation Requirements:

1. Completion of a minimum of 18 credits.
2. Overall grade point average of 3.0 (B) or above.
3. Residency hours -- minimum of 5 credit hours through course attendance at UVU.
4. Courses and project requirements must be finished within a five-year period. No courses will apply toward graduation which are older than five years.

Cybersecurity, Graduate Certificate

Careers

Cyber security is a critical part of our digitally connected lives. From the public sector to private industry, organizations are seeking cyber security professionals to protect their critical data. In addition to cyber security specialists, there is a demand for other technology and business leaders to have a solid understanding of the principles and application of cyber security.

Related Careers

- Computer and Information Systems Managers
- Information Security Analysts
- Database Administrators
- Network and Computer Systems Administrators
- Computer Network Architects
- Computer Network Support Specialists

Cybersecurity, M.S.

Requirements

The Master of Science in Cybersecurity is intended for individuals who desire to acquire additional cybersecurity knowledge, skills, and abilities in order to pursue new or advance existing careers in cybersecurity. The program is also designed for individuals who plan to pursue doctorate degrees in cybersecurity or related fields. The program focuses on the managerial and technical perspectives of cybersecurity through extensive use of case-studies and hands-on lab exercises.

Total Program Credits: 30

Matriculation Requirements:			
1. Bachelor's degree with a GPA of at least 3.2 on a 4.0 scale from an accredited institution in one of the following fields*: Information Systems, Information Security, Information Technology, Computer Science. 2. Admissions essay. 3. Completed application for admission. 4. Official transcripts from all attended institutions of higher education. 5. Two letters of recommendation			
Discipline Core Requirements:			21 Credits
	IT 6300	Principles of Cybersecurity	3
	IT 6330	Cybersecurity Operations	3
	IT 6350	Law/Ethics/ Privacy in Cybersecurity	3
	IT 6370	Penetration Testing and Vulnerability Assessment	3
	IT 6740	Advanced Network Defense and Countermeasures	3
	IT 6770	Cybersecurity Management	3
	IT 6900	Cybersecurity Capstone	3
Elective Requirements:			9 Credits
Choose 9 credits from the following:			9
	IT 6660	Advanced Network Forensics (3.0)	
	IT 6750	Reverse Engineering and Malware Analysis (3.0)	
	IT 6780	Secure Coding (3.0)	
	INFO 6420	Web and Mobile Application Security (3.0)	
	or other departmental approved electives		

Graduation Requirements:

1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.Courses must be finished within a five-year period. No courses will apply toward graduation that are older than five years.
2. Courses must be finished within a five-year period. No courses will apply toward graduation that are older than five years.

Footnote: *Applicants who have bachelor's degrees in other fields may be admitted to the program if they have at least two years of technology or cybersecurity industry experience and have completed undergraduate courses in data communication, programming, and server administration with a grade of C+ or better. Students may also take a comprehensive exam on these topics to satisfy this admission requirement. These applications will be handled on a case-by-case basis.

Cybersecurity, M.S.

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