Cybersecurity Investigations

MANCHESTER COMMUNITY COLLEGE

Why Cybersecurity?

The most fundamental change in corporate security and law enforcement in recent years is the increase in cybercrime, which is causing significant financial losses in the U.S. The number of crimes involving electronic data has been skyrocketing as our dependence on digital devices in our lives increases. Only trained digital forensics experts can search computers and computer devices for electronic evidence, perform digital investigations, recover lost data, track cyber intrusions and provide technical expertise in a way that preserves the integrity of the original digital material.

Normal investigation techniques cannot detect or extract bits of digital information that may remain after deletion. Cyber forensics examines files that are hidden, deleted or overwritten; recovers file fragments and other obfuscated data; detects cyber intrusions and embedded malicious code and compiles evidence relating to the disclosure of personal and financial information.

A degree in Cybersecurity Investigations will place students into a pool of sought-after professionals in the digital forensics world and will provide graduates with a foundation in digital investigations allowing them to transfer to a four-year institution to pursue a bachelor's degree.

Students study for — and take as part of the degree program — CompTIA certification exams for A+, Network+ and Security+.

Program Outcomes

Students who graduate from this program will be able to demonstrate:

- Concepts of a well-rounded education in cybercrime theory and application and gain knowledge of various methods of detecting, recovering and preventing cybercrime, as well as develop flexible data recovery plans relating to new and evolving data storage devices

- Ability to detect, track and prevent cyber intrusions

- The written communication skills necessary to produce well thought-out, conclusive reports to substantiate findings

- The oral communication skills necessary to explain and possibly testify to the findings of a digital examination

- A command of teamwork and understand the importance of ethics in Cybersecurity Investigations

Potential Jobs

- Cybersecurity Investigator
- Intrusion Detection Specialist
- Mobile Device Data Recovery
- Network Security Specialist
- Data Recovery Specialist
- Computer Technician
- Systems Analyst
- Computer Forensic Analyst

Potential Salary*

There is a wide range of jobs in the cybersecurity investigation industry. See below for the average annual salary range in NH for a *Information Security Analyst.*

ENTRY LEVEL	MID-RANGE	EXPERIENCED
$71,406	$104,936	$126,609

New Hampshire Occupational Employment & Wages 2021, published by the NH Economic + Labor Market Information Bureau — Salaries are based on 40 hours of work, not including overtime.

Transfer Opportunities

- Champlain College
- New England College
- Plymouth State University
- Rivier University
- UNH

...and many more!

When sensitive information is compromised by cyber crime, you must have an accurate diagnosis of the incident before you can develop an effective and cost-efficient recovery plan.

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Degree & Certificate Requirements

Cybersecurity Investigations Degree

Degree Program - First Year

First Year	Fall Semester	TH	LAB	CR
CYBD100M	Introduction to Cybersecurity	2	2	3
CIS102M	A+ Preparation - Hardware	2	2	3
CIS110M	Microsoft® Computer Applications	2	2	3
ENGL110XM or ENGL110M	College Composition I with Corequisite or College Composition I	4	0	4
FYE100M	MCC Essentials	1	0	1
	Total	11	6	14

First Year	Spring Semester	TH	LAB	CR
CYBD110M	Investigations and Evidence Recovery	3	3	4
CIS103M	A+ Preparation - Software	2	2	3
CIS116M	Network + Preparation	3	3	4
MATH132M	Business Mathematics	3	0	3
POLS110M	American Government	3	0	3
	Total	14	8	17

Degree Program - Second Year

Second Year	Fall Semester	TH	LAB	CR
CYBD210M	Operating System Artifacts	3	3	4
CYBD215M	Digital Forensics	3	3	4
PHIL240M	Ethics	3	0	3
	Cybersecurity Elective - *choose one:* CYBD200M, CYBD220M	3	3	4
	Total	12	9	15

Second Year	Spring Semester	TH	LAB	CR
CYBD230M	Mobile and Emerging Device Analysis	3	3	4
CYBD235M	Network Intrusions	3	3	4
	Capstone Elective - *choose one:* CIS291M, CYBD225M	2	2	3
	English Elective *(must be 200 level)*	3	0	3
	Science Elective	3	0	3
	Total	14	8	17
			Total Credits -	63

Prior Learning Information

Students who have trained for the following CompTIA certification exams and who have successfully obtained and hold current certifications do not need to repeat that training. Students who wish to receive credit for certification exams should complete a "Credit for Experiential Learning" form which can be obtained from the Department Chair.

- Students with a current CompTIA A+ certificate are not required to take CIS102M and CIS103M

- Students with a current CompTIA Network + certificate are not required to take CIS116M

- Students with a current CompTIA Security + certificate are not required to take CYBD220M

More information about this program is available on our website: www.mccnh.edu/academics/ programs/cybersecurity-investigations

CompTIA AUTHORIZED ACADEMY