

Cybersecurity Minor

Chair: Daniel Joyce, Ph.D.

Office Location: Mendel Science Center Rm. 161

Telephone: (610) 519-7307

[Website](#)

Engineering Students should contact:

Minor Director: Danaï Chasaki, Ph.D.

Office Location: Drosdick Hall

Telephone: (610) 519-4979

Email: danaï.chasaki@villanova.edu

About

The Department of Computing Sciences seeks to provide outstanding education, to advance scholarship, and to engage in activities that benefit society as a whole, in accordance to the University mission. The Department aims to equip students with a solid foundation in computer science, and to prepare them for lifelong independent learning and innovative thinking in a constantly changing discipline. Its faculty members strive to maintain professional currency, and to involve students and colleagues in their research investigations. These endeavors support the University mission to transmit, pursue, and discover knowledge in an atmosphere of collegiality in the university community. Supported by a liberal arts education, the Department seeks to develop the total person, sensitive to social and ethical concerns affected by the computing discipline, and committed to addressing the needs of a diverse and interconnected modern society.

Program: [Computing Sciences](#)

Type: Minor

MINOR: Cybersecurity (26 credits)

Offered jointly through the Departments of Computing Sciences in the College of Liberal Arts and Sciences and Electrical and Computer Engineering in the College of Engineering. The program provides students with a solid foundation in the principles of cybersecurity; equips students with the technical skills and knowledge to address constantly evolving cybersecurity threat; promotes independent study and self-reliance so students can keep pace with rapid technological advancement; and prepares graduates to enter the workforce as cybersecurity professionals

Program Notes:

- Courses that fulfill minor requirements may be used to fulfill other requirements (i.e., primary major, core curriculum, minors, concentrations, or free electives).
- Computer Science majors: at least two of the courses taken for the minor may *not* also be applied to the major. They must be used as free electives.
- Topics, capstone, and independent study courses must be in the cybersecurity area and approved by the cybersecurity minor curriculum committee.

Course	Title	Credits
CSC 3010	Overview of Cybersecurity	3
	Algorithms & Data Structures	8
CSC 1300	Discrete Structures	3
	Core Cybersecurity Electives	9
	Cybersecurity Networks Course	3

Category Descriptions

Algorithms & Data Structures

Credits: 8

Students select from either Option A or Option B below.

Option A

Course	Title	Credits
CSC 1051	Algorithms & Data Struc I	4
CSC 1052	Algorithms & Data Struc II	4

Option B

Course	Title	Credits
ECE 1260	EGR Prog and Applic	3
ECE 1261	EGR Prog and Applic Lab	1
ECE 2160	C++ Algorithms & Data Struct	3
ECE 2161	C++ Algorithms&Data Struct Lab	1

Core Cybersecurity Electives

Credits: 9

Select three courses which have the Cybersecurity minor elective attribute [CYBE].

- Topics courses with distinct content may be repeated for additional credit.
- Student can request permission from the Cybersecurity committee to use other courses related to computing as an elective.

Cybersecurity Networks Course

Credits: 3

Select one course from those listed below.

Course	Title	Credits
CSC 4900	Networks and Security	3
ECE 3180	Computer Networks	3
ECE 3476	Computer and Network Security	3