

Cybersecurity

Requirements for the Master of Science in Cybersecurity

The Master of Science in Cybersecurity is designed to be completed in 4 semesters. It takes 8 courses to complete the program and students can take up to 3 courses per semester, but the Department strongly recommends taking no more than 2 courses per semester--especially during one's first term at Brown. We do not currently offer summer term courses in the program, so courses are completed during fall and spring. Course availability varies and there is no guarantee that students will be able to take every course they are interested in.

Each Cybersecurity student must have their course choices approved by the Director of Graduate Studies for their Track and by the student's advisor. Cybersecurity students must only register for courses at the 1000-level or higher only. Additionally, all courses must be completed with a grade of B or better. Furthermore, students must complete at least two 2000-level courses.

Choose from either the Computer Science Track or the Policy Track

Computer Science Track:

Required Courses:

CSCI 1360	Human Factors in Cybersecurity	1
CSCI 1660	Introduction to Computer Systems Security	1
CSCI 1860	Cybersecurity Law and Policy	1

Select Three Track courses: 3

CSCI 1310	Fundamentals of Computer Systems	
CSCI 1510	Introduction to Cryptography and Computer Security	
CSCI 1650	Software Security and Exploitation	
CSCI 1670	Operating Systems	
CSCI 1680	Computer Networks	
CSCI 1690	Operating Systems Laboratory	
CSCI 1730	Design and Implementation of Programming Languages	
CSCI 2390	Privacy-Conscious Computer Systems	
CSCI 2590	Advanced Topics in Cryptography	
CSCI 2950V	Topics in Applied Cryptography	
CSCI 2951E	Topics in Computer Systems Security	
CSCI 2951U	Topics in Software Security	

Select Two Elective Courses: 2

CSCI 1010	Theory of Computation	
CSCI 1270	Database Management Systems	
CSCI 1300	User Interfaces and User Experience	
CSCI 1380	Distributed Computer Systems	
CSCI 1410	Artificial Intelligence	
CSCI 1420	Machine Learning	
CSCI 1450	Advanced Introduction to Probability for Computing and Data Science	
CSCI 1470	Deep Learning	
CSCI 1570	Design and Analysis of Algorithms	
CSCI 1800	Cybersecurity and International Relations	
CSCI 1805	Computers, Freedom and Privacy	
CSCI 1870	Cybersecurity Ethics	
CSCI 1951R	Introduction to Robotics	
CSCI 2980	Reading and Research	

Other appropriate courses are possible with the approval of the Director of Graduate Studies and the instructor if you've satisfied their prerequisites.

Policy Track:

Required Courses:

CSCI 1360	Human Factors in Cybersecurity	1
CSCI 1860	Cybersecurity Law and Policy	1
CSCI 1880	Introduction to Computer Security	1

Select Three Track courses: 3

CSCI 2980	Reading and Research	
CSCI 2001	Applied Cryptography and Data Privacy	
CSCI 2002	Privacy and Personal Data Protection	

Other appropriate courses are possible with the approval of the Director of Graduate Studies and the instructor if you have satisfied their prerequisites.

Select Two Elective Courses: 2

CSCI 1300	User Interfaces and User Experience	
CSCI 1800	Cybersecurity and International Relations	
CSCI 1805	Computers, Freedom and Privacy	
CSCI 1870	Cybersecurity Ethics	
CSCI 1951L	Blockchains and Cryptocurrencies	