Bachelor of Science

Interdisciplinary Studies with a Major in Cybercrime (BS)

Philip Mann, Program Coordinator and Faculty Advisor (pmann@odu.edu)

This major explores cybercrime from an interdisciplinary perspective that merges the disciplines of criminal justice, computer science, and information technology. Students will receive a foundational understanding of crime and criminal justice and more in-depth understanding about cybersecurity, cyber law, and digital forensics. In addition, students will receive a basic introduction to information technology.

While many crimes have decreased over the past 25 years, the one group of crimes that has increased dramatically is cybercrimes. Careers responding to cybercrime have grown tremendously over the past decade. While many of these careers require in-depth understanding about computer engineering and computer science, many careers also require a broader orientation grounded in the social sciences. Across the country there are 350,000 current vacancies in cybersecurity-related careers. Roughly ten percent of those vacancies are in Virginia.

Cybersecurity experts across the world agree that academic programming should be interdisciplinary in nature. While many universities have difficulty developing interdisciplinary majors, the IDS degree at ODU provides a national model that can be used to develop a cybercrime major grounded in the social sciences. ODU's current cybersecurity and cyber operations majors fill the employment gap for technologically-driven careers. The cybercrime major will fill the employment gap in the area of policy- and legal-driven careers.

Requirements

Lower-Division General Education

Written Communication (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#written)	6
Oral Communication (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#oral)	3
Mathematics (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#math)	3
Language and Culture (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#language)	0-6
Information Literacy and Research (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#information)	3
Human Behavior (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#behavior)	3
Human Creativity (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#creativity)	3
Interpreting the Past (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#interpret)	3
Literature (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#literature)	3
Philosophy and Ethics (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#philosophy)	3
The Nature of Science (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#nature)	8
Impact of Technology (http://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#impact)	3

Written Communication: Grade of C or better required in both written communication courses and in ENGL 110C before declaring major.

Mathematics: MATH 102M or MATH 103M with a C or better and MATH 162M are required. Further math may be necessary for upper-level electives.

Impact of Technology requirement is met in the major by CYSE 200T/IT 200T

Human Behavior: CRJS 215S required

Upper-Division General Education

- Option A. Approved Minor, 12-24 hours; also second degree or second major

- Option B. Interdisciplinary Minor, 12 hours specified by the department, 3 of which may be in the major area of study

- Option C. An approved certification program such as teaching licensure

- Option D. Two Upper-Division Courses from outside the College of Arts and Letters or from the Social Science Component within the College of Arts and Letters that are not required by the major (6 hours).

Requirements for Graduation

Requirements for graduation include the following:

- Minimum of 120 credit hours.
- Minimum of 30 credit hours overall and 12 credit hours of upper-level courses in the major program from Old Dominion University.
- Minimum overall cumulative grade point average of C (2.00) in all courses taken.
- Minimum overall cumulative grade point average of C (2.00) in all courses taken toward the major.
- Minimum overall cumulative grade point average of C (2.00) in all courses taken toward a minor.
- Completion of ENGL 110C, ENGL 211C or ENGL 231C, and the writing intensive (W) course in the major with a grade of C or better. The W course must be taken at Old Dominion University.
- Completion of Senior Assessment.

Cybercrime Major

General Education

Complete lower-division requirements		38-44
Complete upper-division requirements (minimum of 6 credit hours)		6
MATH 162M	Precalculus I	3
Interdisciplinary Studies Core		**9**
IDS 300W	Interdisciplinary Theory and Concepts (grade of C or higher required) [***]	
IDS 493	IDS Electronic Portfolio Project [***]	
CRJS 368	Internship (Students may also enroll in CYSE 494 upon approval by the Director of the Center for Cybersecurity Education and Research.)	
or CYSE 368	Cybersecurity Internship	
Cybercrime Core [+]		
CRJS 310	Cybercriminology: Foundations	3
CYSE/CRJS 406	Cyber Law	3
CYSE 407	Digital Forensics	3
CRJS 409	Crime and Computer Applications	3
or CYSE 409	Crime and Computer Applications	
Criminology Core [+]		
CRJS 222	The Criminal Justice System	3
SOC 337	Social Research Methods	3
Select three from the following:		9
CRJS 319	Public and Private Security	
CRJS 320	Law and Social Control	
CRJS 323	Police in American Society	

CRJS 340	White-Collar Crime	
CRJS 344	Social Science and Crime Mapping	
CRJS 345	Organized Crime: A Survey of Domestic and World-Wide Organized Crime Activities	
CRJS 404	Law and Digital Forensics	
CRJS 415	Courtroom As a Social System	
CRJS 421	Deviant Behavior	
CRJS 462	Substantive Criminal Law	
Technical Base [++]		
IT/CYSE 200T	Cybersecurity, Technology, and Society	3
CYSE 250	Basic Cybersecurity Programming and Networking	3
CYSE 300	Introduction to Cybersecurity	3
Select two of the following: [+++]		6
CS 150	Introduction to Programming with C++	
CS 170	Introduction to Computer Architecture I	
CS 250	Programming with C++	
IT 201	Introduction to Information Systems	
IT 205	Introduction to Object-Oriented Programming	
IT 315	Introduction to Networking and Security	
IT 325	Web Site and Web Page Design	
IT 450	Database Concepts	
Total Credit Hours		**98-104**

**	Further math may be necessary for upper-level electives.
***	Offered online only.
+	Other courses may be substituted with the approval of the program coordinator.
++	Prerequisites may be required; review the course description or consult an advisor. Other courses may be substituted with the approval of the program coordinator.
+++	Students may also select cybersecurity (CYSE) courses at the 300 or 400 level not otherwise required.

Electives

Elective courses may be taken for the remainder of the minimum 120 credits required for the degree.

Honors Program in Interdisciplinary Studies

Qualified students in the interdisciplinary studies majors may earn honors by fulfilling all degree requirements and meeting the honors requirements listed below.

1. Attain an overall grade point average of 3.25.
2. Attain a grade point average in the major of 3.5.
3. Complete two upper-division courses designated as honors courses: IDS 300W and IDS 493.
4. Complete at least 60 credits at Old Dominion University, 54 of which must be in grade-point graded courses.

An application for departmental honors must be provided by the student for approval by the Director of Interdisciplinary Programs.

Degree Program Guide

The Degree Program Guide is a suggested curriculum to complete this degree program in four years. It is just one of several plans that will work and is presented only as broad guidance to students. Each student is strongly encouraged to develop a customized plan in consultation with their academic advisor. Additional information can also be found in Degree Works.

Course	Title	Credit Hours
Freshman		
Fall		
ENGL 110C	English Composition (Grade of C or better required)	3
MATH 102M or MATH 103M (C or better required; meets Mathematical Skills)		3
Elective or Language and Culture II (May be waived; See requirement details)		3
Oral Communication		3
CRJS 215S	Introduction to Criminology (Meets Human Behavior)	3
	Credit Hours	**15**
Spring		
ENGL 211C or ENGL 231C	Writing, Rhetoric, and Research (C or better required) or Writing, Rhetoric, and Research: Special Topics	3
MATH 162M	Precalculus I	3
Interpreting the Past		3
Approved prerequisite or program elective		3
Elective or Language and Culture II (May be waived; See requirement details)		3
	Credit Hours	**15**
Sophomore		
Fall		
Nature of Science I		4
CRJS 222	The Criminal Justice System	3
CRJS 310	Cybercriminology: Foundations	3
CYSE 250	Basic Cybersecurity Programming and Networking	3
IDS 300W	Interdisciplinary Theory and Concepts (C or better required)	3
	Credit Hours	**16**
Spring		
Information Literacy and Research		3
Nature of Science II		4
CYSE 300	Introduction to Cybersecurity	3
SOC 337	Social Research Methods	3
Criminology Core elective		3
	Credit Hours	**16**
Junior		
Fall		
CYSE 407	Digital Forensics	3
CRJS 409 or CYSE 409	Crime and Computer Applications or Crime and Computer Applications	3
Criminology Core elective		3
Technical Base elective		3
Approved prerequisite or program elective		3
	Credit Hours	**15**
Spring		
CYSE 200T/IT 200T (meets Impact of Technology)		3

CRJS 406
   or CYSE 406
	Cyber Law
	   or Cyber Law
		3

Technical Base elective		3
Criminology Core elective		3
Elective		3
Credit Hours		**15**
Senior		
Fall		
Human Creativity		3
Philosophy and Ethics		3
Upper-Division General Education course or Minor		3
Upper-Division General Education course of Minor		3
Minor or Elective		3
Credit Hours		**15**
Spring		
Literature		3
IDS 493	IDS Electronic Portfolio Project	3

CYSE 368
   or CRJS 368
	Cybersecurity Internship
	   or Internship
		3

Elective		1
Minor or Elective		3
Credit Hours		**13**
Total Credit Hours		**120**

BA or BS to MBA (Master of Business Administration) Linked Program

The linked BA/MBA or BS/MBA program is an early entry to the MBA program of study. The early-entry program is designed for well qualified non-business undergraduate ODU students to start their MBA program prior to completing their undergraduate degree. Well qualified non-business undergraduate students may take MBA-level courses as early as three semesters prior to graduation and count up to 12 graduate credits toward their undergraduate degree. Students participating in the early-entry program must earn a minimum of 150 credit hours (120 discrete credit hours for the undergraduate degree and 30 discrete credit hours for the graduate degree). Early-entry program students should carefully consider their undergraduate degree program requirements when planning their course of study. Students in the early-entry program work in close consultation with the MBA Program Office and should refer to information in the Strome College of Business section in the graduate catalog (http://catalog.odu.edu/graduate/stromecollegeofbusiness/) to develop an individualized plan of study based on the required coursework.

BA or BS to MPA (Master of Public Administration) Linked Program

The linked BA/MPA or BS/MPA program provides qualified Old Dominion University undergraduate students with the opportunity to earn a master's degree in public administration while taking credits in the MPA program as an undergraduate student. The program is designed for highly motivated students with the desire to immediately continue their education after the bachelor's degree. The program is especially relevant to individuals seeking to work (or currently working) in the public or non-profit sectors, but is suitable for students from any undergraduate major. Graduate courses may be taken during the fall and spring semester of the student's senior undergraduate year. Up to 12 graduate credits can count toward both the undergraduate and graduate degree and can meet upper-level General Education requirements. After receiving the undergraduate degree, a student will continue with the MPA program, taking MPA courses until completing the required 39 credit hours. Students in the linked program

must earn a minimum of 150 credit hours (120 discrete credit hours for the undergraduate degree and 30 discrete credit hours for the graduate degree).

Requirements for admission to the graduate program can be found in the School of Public Service section of the Graduate Catalog (http://catalog.odu.edu/graduate/business/public-service/). For additional information, please contact the School of Public Service in the Strome College of Business.