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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Language and Culture</td>
<td>3</td>
</tr>
<tr>
<td>Information Literacy and Research</td>
<td>3</td>
</tr>
<tr>
<td>Human Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Human Creativity</td>
<td>3</td>
</tr>
<tr>
<td>Interpreting the Past</td>
<td>3</td>
</tr>
<tr>
<td>Literature</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>The Nature of Science</td>
<td>3</td>
</tr>
<tr>
<td>Impact of Technology</td>
<td>3</td>
</tr>
<tr>
<td>Written Communication: Grade of C or better</td>
<td>3</td>
</tr>
</tbody>
</table>

Upper-Division General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 102M or MATH 103M with a C or better</td>
<td>3</td>
</tr>
<tr>
<td>MATH 162M</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDS 300W Interdisciplinary Theory and Concepts (grade of C or higher required)</td>
<td>3</td>
</tr>
<tr>
<td>IDS 493 IDS Electronic Portfolio Project</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 368 Internship (Students may also enroll in CYSE 494 upon approval by the Director of the Center for Cybersecurity Education and Research.)</td>
<td>3</td>
</tr>
<tr>
<td>or CYSE 368 Cybersecurity Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

Cybercrime Core: 3

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: 3

Criminology Core: 3

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
Interdisciplinary Studies with a Major in Cybercrime (BS)

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

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.
<table>
<thead>
<tr>
<th>CRJS 406 or CYSE 406</th>
<th>Cyber Law or Cyber Law</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Base elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Criminology Core elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

| 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 or CYSE 368 | IDS Electronic Portfolio Project or 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).

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.

### 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).