

## Bachelor of Science

# Cybersecurity with a Major in Artificial Intelligence for Cybersecurity

**Web Site:** <https://www.odu.edu/cyber> (<https://www.odu.edu/cyber/>)

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This major will begin effective with the Spring 2026 term.

## Requirements

### Lower-Division General Education

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

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

Mathematics: MATH 162M required.

Impact of Technology: met with CYSE 200T/IT 200T in the major

Human Behavior: CRJS 215S or DASC 205S/SOC 205S

### Upper-Division General Education

Met in the major.

### 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.

## Artificial Intelligence for Cybersecurity Major

### General Education

Complete lower-division requirements 38-44

Complete upper-division requirements (met in the major)

### Core Courses

IDS 300W	Interdisciplinary Theory and Concepts	3
IDS 493	IDS Electronic Portfolio Project	3
CYSE/IT 200T	Cybersecurity, Technology, and Society	3
CYSE 201S	Cybersecurity and the Social Sciences	3
CYSE 250	Basic Cybersecurity Programming and Networking	3
CYSE 300	Introduction to Cybersecurity	3
CYSE 301	Cybersecurity Techniques and Operations	3
CYSE 368 or CYSE 494	Cybersecurity Internship Entrepreneurship in Cybersecurity	3
CYSE/CRJS/CPD 406	Cyber Law	3
CYSE/POLS 425W	Cybersecurity Strategy and Policy	3

### Required AI Courses

CS 422	Introduction to Machine Learning	3
PHIL/AI 446	Artificial Intelligence (AI) Ethics and Policy	3
CYSE 410 or AI 410	Artificial Intelligence (AI) Methods and Models Artificial Intelligence (AI) Methods and Models	3
CYSE 420	Applied Machine Learning in Cybersecurity	3
CYSE 421	Generative AI in Cybersecurity	3

### Electives

Select three of the following: 9

CS 455	Introduction to Networks and Communications
CS 463	Cryptography for Cybersecurity
CS 464	Networked Systems Security
CS 469	Data Analytics for Cybersecurity
CS 472	Network and Systems Security
CYSE 270	Linux System for Cybersecurity
CYSE 280	Windows System Management and Security
CYSE 450	Ethical Hacking and Penetration Testing

**Total Credit Hours 92-98**

No more than two classes, or six credits, may be counted for both the major and a minor. Some minors may allow fewer credits to share.

### Electives

Elective credit may be needed to meet the minimum of 120 hours required for the degree. Students can take electives from any discipline at ODU as needed to complete the required 120 credit hours. However, no more than 29 credits from courses in the Strome College of Business may be applied to the degree requirements, including named elective courses and general electives (ACCT, BNAL, BUSN, ECON, ENTR, FIN, INBU, IT, MGMT, MKTG, MSCM, OPMT, PAS, PORT, REST, RMI).