

# CYBERSECURITY CERTIFICATE

School of Interdisciplinary Informatics, College of Information,  
Science & Technology

## Vision Statement

Cybersecurity is the practice of managing information related risks by ensuring confidentiality, integrity, authentication, availability, and non-repudiation of data. In addition to the national interest in cybersecurity, local businesses are increasingly reliant on secure computer infrastructures for their daily operations. A graduate-level certificate is a logical step to enhance the skill set of local and at-a-distance cybersecurity professionals. Additionally, the certificate program can serve as a feeder into the MS in cybersecurity degree should the students in the certificate choose to continue their graduate education.

## Program Contact Information

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Program Website (<https://www.unomaha.edu/college-of-information-science-and-technology/school-of-interdisciplinary-informatics/cybersecurity/cybr-graduate-certificate.php>)

## Admissions

General Application Requirements and Admission Criteria (<http://catalog.unomaha.edu/graduate/admission/>)

## Program-Specific Requirements

### Application Deadlines (Spring 2024, Summer 2024, and Fall 2024)

- Fall: July 1
- Spring: December 1
- Summer: April 1

## Other Requirements

- The minimum undergraduate grade point average requirement for the program is 3.0 or equivalent score on a 4.0 scale. Applicants should have the equivalent of a four-year undergraduate degree.
- **English Language Proficiency:** Applicants are required to have a command of oral and written English. Those who do not hold a baccalaureate or other advanced degree from the United States, **OR** a baccalaureate or other advanced degree from a predetermined country on the waiver list (<https://www.unomaha.edu/graduate-studies/prospective-students/Proof%20of%20English%20Proficiency%20International.pdf>), must meet the minimum language proficiency score requirement in order to be considered for admission.
  - Internet-based TOEFL: 80, IELTS: 6.5, PTE: 53, Duolingo: 110
- **Resume:** Submit a detailed resume indicating your work experience and background

## Degree Requirements

Code	Title	Credits
<b>Required Courses</b>		
CYBR 8366	FOUNDATIONS OF CYBERSECURITY	3
Select one of the following:		
CYBR 8410	DISTRIBUTED SYSTEMS AND NETWORK SECURITY	3
CYBR 8420	SOFTWARE ASSURANCE	
CYBR 8490	CYBER INVESTIGATIONS	
<b>Electives</b>		
CYBR 8396	MOBILE DEVICE FORENSICS	6
CYBR 8436	QUANTUM COMPUTING AND CRYPTOGRAPHY	
CYBR/ISQA 8570	INFORMATION SECURITY POLICY AND ETHICS	
CYBR 8446	INDUSTRIAL CONTROL SYSTEM SECURITY	
CYBR 8450	APPLIED CRYPTOGRAPHY	
CYBR 8456	HOST-BASED VULNERABILITY DISCOVERY	
CYBR 8460	SECURITY OF EMBEDDED SYSTEMS	
CYBR 8466	NETWORK-BASED VULNERABILITY DISCOVERY	
CYBR 8470	SECURE WEB APPLICATION DEVELOPMENT	
CYBR 8480	SECURE MOBILE DEVELOPMENT	
CYBR 8546	COMPUTER SECURITY MANAGEMENT	
CYBR 8080	SPECIAL TOPICS IN CYBERSECURITY	
CYBR 8900	INDEPENDENT STUDY AND RESEARCH IN CYBERSECURITY	
CYBR 8910	INTERNSHIP	
CYBR 8986	SPECIAL TOPICS IN CYBERSECURITY	
CSCI 8340	DATABASE MANAGEMENT SYSTEMS II	
CSCI 8530	ADVANCED OPERATING SYSTEMS	
CSCI/MATH 8566	NUMBER THEORY & CRYPTOGRAPHY	
CSCI 8610	FAULT TOLERANT DISTRIBUTED SYSTEMS	
ISQA 8060	RESEARCH IN MIS	
ISQA 8080	SEMINAR IN MANAGEMENT INFORMATION SYSTEMS	
ISQA 8546	COMPUTER SECURITY MANAGEMENT	
ISQA 8560	INFORMATION WARFARE AND SECURITY	
ISQA 8580	SECURITY RISK MANAGEMENT AND ASSESSMENT	
<b>Total Credits</b>		<b>12</b>

Incoming certificate students that do not have a cybersecurity background may also require foundation courses as needed prerequisites, depending on which core courses are selected and depending on the background of the student.

## Completion of the Certificate

During what is expected to be the semester the certificate is completed and prior to the posted deadline, students should apply for the certificate through MavLINK on or before the deadline. Information can be found here (<http://www.ses.unomaha.edu/registrar/graduate.php>). If you complete the application form and do not complete all of the requirements for the certificate, contact the Office of Graduate Studies as soon as possible. You must reapply during the next semester in which you expect to complete the certificate; no additional fee is charged to reactivate your application.

The following requirements are due 12 working days prior to commencement:

- “Incomplete” and “NR” grades from previous terms must be removed so that the grade will be in the Office of Graduate Studies.
- All fees, fines, and other obligations due the university must be settled.

For students currently enrolled in courses that are a part of their plan of study, enrollment must be maintained in order to complete the certificate. A grade for any current enrollment must be received by the Registrar's Office no later than the close of business on the fifteenth working day following the end of a semester.

### **Awarding of Graduate Certificates**

The Office of Graduate Studies will mail the certificate to students when all requirements are completed and all obligations to the university are satisfied. The Graduate College will not approve any changes in the student's permanent record once the certificate is awarded.