

MACHINE LEARNING CERTIFICATE

Department of Computer Science, College of Information Science & Technology

Vision Statement

The recent advances in machine learning (ML) have made significant impacts in diverse fields such as health care, agriculture, transportation, education, global security, etc. Machine learning experts are in very high demand for right now and the foreseeable future. The ML graduate certificate will prepare students to become data scientists, machine learning algorithm designers, deep learning systems engineers, computer vision experts, software and application developers, and other machine learning related professionals.

Program Contact Information

Jon Youn, PhD, Graduate Program Chair (GPC)
282E Peter Kiewit Institute (PKI)
402.554.4911
jyoun@unomaha.edu

Emily Wiemers, Graduate Advisor
170 Peter Kiewit Institute (PKI)
402.554.3819
ewiemers@unomaha.edu

Program Website (<https://www.unomaha.edu/college-of-information-science-and-technology/computer-science/prospective-students/graduate-programs.php>)

Admissions

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

Program-Specific Requirements

Application Deadlines (Spring 2023, Summer 2023, and Fall 2023)

- Fall: July 1
- Spring: November 1
- Summer: March 1

Other Requirements

- Individuals with an undergraduate degree and one to two years of work experience in information systems (IS) related roles are eligible to apply for this certificate programs.
- The minimum undergraduate grade point average requirement for the data management certificate is 3.0 or equivalent score on a 4.0 scale. Applicants should have the equivalent of a 4-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, must meet the minimum language proficiency score requirement in order to be considered for admission. Minimum scores required for this program are:
 - Paper-based TOEFL: 563, Internet-based TOEFL: 85, IELTS: 6.5, PTE: 53, Duolingo: 105

- **Resume:** Submit a detailed resume indicating your work experience and background

Degree Requirements

| Code | Title | Credits |
|--|--|-----------|
| Recommended Prerequisite Course | | |
| CSCI 2410 | INTRODUCTION TO DATA ANALYTICS USING PYTHON | |
| Required Courses | | |
| CSCI 8590 | FUNDAMENTALS OF DEEP LEARNING | 3 |
| CSCI 8360 | MACHINE LEARNING FOR TEXT | 3 |
| If a required course is waived, it must be replaced with another course from the electives list below. | | |
| Electives | | 6 |
| CSCI 8300 | IMAGE PROCESSING AND COMPUTER VISION | |
| CSCI 8110 | ADVANCED TOPICS IN ARTIFICIAL INTELLIGENCE | |
| BMI 8400 | LINEAR ALGEBRA FOR ADVANCED COMPUTING AND AI | |
| Total Credits | | 12 |