

GEOGRAPHIC INFORMATION SCIENCE CERTIFICATE

The mission of the geography graduate program is to provide quality graduate education in physical geography, human geography and spatial analysis (GIS, cartography and remote sensing). The department offers a rich learning environment for students with close interaction between faculty and students, technology-enhanced instruction, and opportunities for fieldwork. Courses enhance student's perception and appreciation of the earth's human and physical environments as well as geography's essential role in both understanding and navigating our increasingly interconnected world. The department, an active participant in its community, has ties throughout the city and state, leading to a wide variety of internship opportunities. The department is committed to providing students with the essential knowledge and skills needed to succeed, be it in professional employment or further graduate education.

Program Related Information

Program Contacts

Christina Dando, PhD, Graduate Program Chair
402.554.3134
cdando@unomaha.edu

Rex Cammack, PhD
402.554.2282
rcammack@unomaha.edu

Program Website (<http://www.unomaha.edu/college-of-arts-and-sciences/geography/academics/graduate-programs/>)

Admissions

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

Application Deadlines

- Spring 2026: December 1
- Summer 2026: May 1
- Fall 2026: July 1

Other Requirements

- Applicants must have a GPA in geography of at least a 3.0/4.0.
- The student must demonstrate a background in geography, statistics, and computer science.
- Prerequisites would include courses in human and physical geography, statistics, and programming such as the following:

| Code | Title | Credits |
|-----------|------------------------------------|---------|
| CIST 1400 | INTRODUCTION TO COMPUTER SCIENCE I | 3 |
| GEOG 1020 | INTRODUCTION TO HUMAN GEOGRAPHY | 3 |
| MATH 1530 | ELEMENTARY STATISTICS | 3 |

- **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.

- Internet-based TOEFL: 80, IELTS: 6.5, PTE: 53, Duolingo: 110
- Only required if not admitted to MS in Geography program
 - Two letters of recommendation
 - Statement of Purpose
 - Resume

Degree Requirements

| Code | Title | Credits |
|------------------------------------|--|-----------|
| Required Courses | | |
| GEOG 8535 | CARTOGRAPHY AND DATA VISUALIZATION | 4 |
| GEOG 8056 | GEOGRAPHIC INFORMATION SYSTEMS I | 4 |
| GEOG 8666 | GEOGRAPHIC INFORMATION SYSTEMS II | 4 |
| Elective Courses | | |
| Select 6 hours from the following: | | 6 |
| GEOG 8016 | CONSERVATION OF NATURAL RESOURCES | |
| GEOG 8036 | COMPUTER MAPPING AND VISUALIZATION | |
| GEOG 8636 | ENVIRONMENTAL REMOTE SENSING | |
| GEOG 8650 | LAND USE | |
| GEOG 8800 | INTERNSHIP IN ENVIRONMENTAL/ REGIONAL PLANNING | |
| Total Credits | | 18 |

Students may substitute advanced courses in GIS for required courses already taken. Students will be allowed a maximum of two substitutions for these required courses. Substitution must be approved by the department GIS advisor.