

# GEOGRAPHIC INFORMATION SCIENCE CERTIFICATE

## Vision Statement

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 Contact Information

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**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/>)

## Program-Specific Requirements

### Application Deadlines (Spring 2025, Summer 2025, and Fall 2025)

- Fall: July 1
- Spring: December 1
- Summer: May 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	INTRODUCTION TO APPLIED PROBABILITY AND 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
<b>Required Courses</b>		
GEOG 8535	CARTOGRAPHY AND DATA VISUALIZATION	4
GEOG 8056	GEOGRAPHIC INFORMATION SYSTEMS I	4
GEOG 8666	GEOGRAPHIC INFORMATION SYSTEMS II	4
<b>Elective Courses</b>		
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	
<b>Total Credits</b>		<b>18</b>

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.