GEOGRAPHIC INFORMATION SCIENCE (CERTIFICATE)

Geographic Information Science technology is having a tremendous impact on our world due to its capabilities for approaching complex problems of a multidisciplinary nature.

Description

The graduate-level GIS certificate program addresses the needs of students and professional communities that require GIS education, training, and technology transfer. The program focus includes the issues of formal GIS education (basic knowledge and theory), provides students with hands-on training and exposure to technology (GIS technical training), provides students with problem-solving skills, and addresses the needs of professionals.

This certificate is for graduate students and professionals with a bachelor's degree and the desire for this additional certification. Prospective students must demonstrate that they have sufficient background in geography, basic statistics and "mapping sciences" to be able to succeed in graduate-level courses in GIScience. This proficiency should include knowledge of map reading, thematic mapping and air photo interpretation at least equivalent to what is provided in GEOG 217 or NRES 312. Proficiency can be demonstrated by completion of previous courses (as evident on transcripts), professional experience, letters of recommendation, or by passing a qualifying examination. If determined necessary by the student's certificate advisory committee, a prospective student may be required to complete GEOG 217, GEOG 312, GEOG 317 or other courses before full admittance to the certificate program.

Program-Related Information

Graduate Chair

Heather Richards-Rissetto
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Program Website

https://sgis.unl.edu/academics/graduate/

Applying for Admission

Standard requirements for all graduate programs

- Application for Admission with $50 non-refundable application fee (https://graduate.unl.edu/admissions/requirements/#appfee).
- Transcripts (https://graduate.unl.edu/admissions/requirements/#transcripts) (unofficial): Uploaded as part of application form.

  If International: Uploads must include all college- or university-level transcripts or mark sheets (records of courses and marks earned), with certificates, diplomas, and degrees plus certified English translations.

  After admission: Official documents are required from all students who are admitted and enroll. Photocopies of certified records are not acceptable. International students enrolled in other U.S. institutions may have certified copies of all foreign records sent directly to the Office of Graduate Studies by their current school's registrar office.
- If applicant's native language is not English, verification of English proficiency (https://graduate.unl.edu/admissions/english-proficiency/) is required.

  When sending TOEFL scores, our institution code is 6877 and a department code is not needed.
- If applicant is not a US citizen and expects an F or J visa: financial information (https://graduate.unl.edu/prospective/international/financial/).
- Applicants must also fulfill any additional requirements the department specifies at the time of application.

Additional requirements specific to this program

- Two letters of recommendation
- Statement of purpose
- Resume or CV

Certificate programs are not considered degree programs, so international students should be aware that admission to this program is ineligible for immigration forms for an F-1 student visa.

Admission Application Deadlines

Applications are reviewed on a rolling basis.

Requirements

Complete 15 credit hours and a comprehensive examination:

Required Courses	**(6-7 credits, choose at least 2)**	**6-7**
GEOG 817	Web GIS	3
GEOG 822	Advanced Techniques in Geographic Information Systems	4
GEOG 825	Geovisualization	3
GEOG 832	Programming, Scripting, and Automation for GIS	3
Electives	**(8-9 credits, select at least 2)**	**8-9**
GEOG 818 / NRES 818	Introduction to Remote Sensing	4
GEOG 819 / NRES 820	Applications of Remote Sensing in Agriculture and Natural Resources	4
GEOG 827 / NRES 827	Introduction to the Global Positioning System (GPS)	2
GEOG 844	Geo-demographic and Geographic Information Systems (GIS)	3
GEOG 861 / ANTH 861	Geospatial Approaches in Digital Humanities and Social Sciences	3
GEOG 891	Special Topics in Geography	2-3
CIVE 853	GIS in Water Resources	3
CRPL 830	Planning with GIS	3
CRPL 832	Advanced Spatial Analysis with GIS	3
CRPL 833	GIS in Environmental Design and Planning	3
CRPL 892	Selected Topics in Community and Regional Planning	1-9
NRES 815	GIS for Agriculture and Natural Resources	4
STAT 831	Spatial Statistics	3