

GEOGRAPHY, MS

for the degree of Master of Science in Geography

Successful degree candidates with backgrounds in physical geography and GIS are recommended for a **Master of Science**; others receive a **Master of Arts**.

We offer a program leading to the **Master of Science** degree in geography with the following specializations:

- **Geographic Information Science**
 - Geographic information systems; Dynamic modeling of ecological and social systems; Geocomputation and CyberGIS; Aerial photo analysis; Remote sensing; Inter-regional input-output modeling; Regional science; Spatial analysis
- **River, Watershed, and Landscape Dynamics**
 - Fluvial geomorphology; Watershed science and management; Aerial photo analysis; Ecosystem dynamics

Admission

Students applying for admission to the master’s program are expected to have a strong undergraduate background in geography and/or related disciplines. In addition to other Graduate College admission requirements, a grade point average of at least 3.0 (A = 4.0) in the undergraduate major is required. PhD candidates are generally expected to have at least a 3.5 average in previous graduate work.

GRE scores are not required or evaluated for admission to our graduate programs.

Assistantships and Fellowships

Geography graduate students generally receive tuition/fee waivers through teaching assistantships, research assistantships, or fellowships.

Graduate Teaching Experience

Although teaching is not a Graduate College requirement, it is an important part of the graduate experience in this program. We have implemented a professionalization program where graduate students work with faculty members to receive advice and gain first-hand experience in teaching undergraduate courses. Several of our graduate students have also had the opportunity to serve as lead instructor for introductory-level geography courses.

Facilities and Resources

The department hosts several state-of-the-art research laboratories maintained by individual faculty members. The CyberInfrastructure and Geospatial Information (CIGI) Lab (<https://cigi.illinois.edu/>), housed in the department, researches and develops cutting-edge cyberinfrastructure to advance geospatial science and technologies. The department also sponsors the CyberGIS Center for Advanced Digital & Spatial Studies (<https://cybergis.illinois.edu/>) whose mission is to empower advanced digital and spatial studies through innovation of CyberGIS technologies and applications. The lab houses several high performance computers and servers for performing computationally intensive geographic analysis and problem solving in various research, education, and outreach contexts.

Map and Geography Library

The University Library has a substantial collection of geography books and journals. Most of the new and more recent books are located in the Social Sciences, Health, and Education Library (SSHLEL) (<https://www.library.illinois.edu/sshel/>); nearly all geography journals are available full-text through the University Library (<https://www.library.illinois.edu/>). The Map Library (<https://www.library.illinois.edu/max/>) holds a collection of over 626,000 maps and aerial photographs and houses an extensive collection of books on cartography and geographic information science. Map Library and University Library Scholarly Commons (<https://www.library.illinois.edu/sc/>) staff can also help students locate geospatial data.

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Thesis Option

Code	Title	Hours
At least one course on geographic information systems (GIS) and related geospatial techniques		
GGIS 471	Modern Geographic Thought	4
GGIS 491	Research in Geography	2
Each student must also fulfill program requirements specific to their specialty area		
GGIS 599	Thesis Research (8 max applied toward degree)	8
Total Hours		32

Other Requirements

Requirement	Description
Other requirements may overlap	
A maximum of 2 elective courses may be taken CR/NC.	
Minimum Hours Overall Required	16
Within the Unit:	
Minimum 500-level Hours Required	12 (8 in GGIS)
Overall:	
Minimum GPA:	3.0

Non-Thesis Option

Code	Title	Hours
At least one course on geographic information systems (GIS) and related geospatial techniques		
GGIS 471	Modern Geographic Thought	4
GGIS 491	Research in Geography	2
Each student must also fulfill program requirements specific to their specialty area		
Total Hours		32

Other Requirements

Requirement	Description
Other requirements may overlap	
Some Geography program options do not allow the non-thesis Master's degree option. Contact the department for further details.	

Two written research papers which address substantive research questions are required along with a comprehensive examination.

A maximum of 2 elective courses may be taken CR/NC.

Minimum Hours Overall Required 16

Within the Unit:

Minimum 500-level Hours Required 12 (8 in GGIS)

Overall:

Minimum GPA: 3.0

Please refer to the Graduate College Handbook (<https://grad.illinois.edu/handbooks-policies/>) for additional details and requirements.

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Department of Geography & Geographic Information Science

Department Head: Dr. Julie Cidell

Director of Graduate Studies: Dr. Chunyuan Diao (as of Spring 2025)

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Department of Geography & GIS homepage (<https://ggis.illinois.edu/>)

College of Liberal Arts & Sciences

Liberal Arts & Sciences homepage (<https://las.illinois.edu/>)

Admissions

Graduate College Admissions & Requirements (<https://grad.illinois.edu/admissions/apply/>)

1. All graduate students will have a fundamental understanding of the history and philosophies of geography in all its diversity and breadth.
2. All graduate students will have knowledge of the latest trends and developments in geography as social science, a discipline increasingly rooted in geographic information science, and physical science.
3. All graduate students will have a deep and nuanced comprehension of the latest conceptual developments in their selected research areas.
4. All graduate students will have the ability to formulate a research problem, know the proper conceptual tools and methods to appropriately address it, and properly place it in evolving, relevant literature.
5. All graduate students will have a strong knowledge of proper ethical conduct in the performance and completion of advanced research.

Graduate Degree Programs in Geography:

- CyberGIS and Geospatial Data Science, MS (<http://catalog.illinois.edu/graduate/las/cyberGIS-geospatial-data-science-ms/>) (online)
- Geography, MA (<http://catalog.illinois.edu/graduate/las/geography-ma/>)
- Geography, MS (p. 1)
 - **concentrations:**
 - Geographic Information Science - Professional Science Master's (<http://catalog.illinois.edu/graduate/las/geography-ms/geographic-information-science-professional-science-masters/>)
 - Computational Science & Engineering (<http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/>)
- Geography, PhD (<http://catalog.illinois.edu/graduate/las/geography-phd/>)
 - **concentration:**
 - Computational Science & Engineering (<http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/>)