

# GEOGRAPHY AND GEOGRAPHIC INFORMATION SCIENCE

<http://www.geog.illinois.edu/>

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Major: Geography  
Degrees Offered: M.A., M.S., Ph.D.  
Graduate Concentration: Professional Science Masters; Geographic Information Science (M.S. only)

Medical Scholars Program: Doctor of Philosophy (Ph.D.) in Geography and Doctor of Medicine (M.D.) through the Medical Scholars Program (<http://www.med.illinois.edu/mdphd>)

## Graduate Degree Programs

The Department of Geography and Geographic Information Science offers programs leading to the Master of Arts, Master of Science and Doctor of Philosophy degrees in Geography. The department's specializations are organized into four programs:

1. Cities and Metropolitan Areas (urban health and quality of life, urban governance and politics, race, class, and city policing, critical studies of urban transportation and mobilities, globalization, neoliberalization and the city);
2. Geographic Information Science (geographic information systems, dynamic modeling of ecological and social systems, geocomputation and cyber GIS, aerial photogrammetry, remote sensing, interregional input-output modeling, regional science and spatial analysis);
3. River, Watershed and Landscape Dynamics (fluvial geomorphology, watershed science and management, and ecosystem dynamics);
4. Society, Space and Environments (political ecology, environmental policy and social vulnerability, urban analysis, health geography and geopolitical analysis).

## 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. Ph.D. candidates are generally expected to have at least a 3.5 average in previous graduate work.

## Graduate Teaching Experience

Although teaching is not a general Graduate College requirement, experience in teaching is considered an important part of the graduate experience in this program. We have implemented a professionalization program in our department, where graduate students work with faculty members to receive advice and gain first-hand experience in teaching undergraduate courses. Several graduate students have also been

provided an opportunity to teach introductory undergraduate courses over the last few years.

## Facilities and Resources

The department also includes several state-of-the-art research laboratories maintained by individual faculty members. The CyberInfrastructure and Geospatial Information Laboratory (CIGI), housed in the department, researches and develops cutting-edge cyberinfrastructure to advance geospatial sciences and technologies. The department is also a sponsor of the CyberGIS Center for Advanced Digital and Spatial Studies whose mission is to empower advanced digital and spatial studies through innovation of CyberGIS technologies and applications. The laboratory houses several high performance computers and servers for performing computationally intensive geographic analysis and problem solving in various research, education, and outreach contexts. The Global Environmental Analysis and Remote Sensing (GEARS) Laboratory examines the impacts of climate change and land use/land cover change on vegetated ecosystems using remote sensing data. The Regional Economics Applications Laboratory focuses on the development of models of urban and regional economies for impact analysis and economic forecasting. The department is a participant in the Social Dimensions of Environmental Policy (SDEP) strategic initiative, which aims to understand the social and political-economic forces shaping just and sustainable environmental policy. The soil laboratory has a wide array of equipment for physical and chemical analysis of earth materials.

## 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 (SSHEL); nearly all geography journals are available full-text through the University Library's website. The Map Library holds a collection of over 626,000 maps and aerial photographs. Additionally, the Map Library houses an extensive collection of books on cartography and geographic information science. The Map Library also has a small collection of geospatial data on CD-ROM, and assistance in locating geospatial data can be obtained in either the Map Library or the University Library's Scholarly Commons.

## Medical Scholars Program

Applications are not currently being accepted.

The Medical Scholars Program permits highly qualified students to integrate the study of medicine with study for a graduate degree in a second discipline, including Geography. Students may apply to the Medical Scholars Program prior to beginning graduate school or while in the graduate program. Applicants to the Medical Scholars Program must meet the admissions standards for and be accepted into both the doctoral graduate program and the College of Medicine. Students in the dual degree program must meet the specific requirements for both the medical and graduate degrees. On average, students take eight years to complete both degrees. Further information on this program is available by contacting the Medical Scholars Program, 125 Medical Sciences Building, (217) 333-8146 or at [www.med.illinois.edu/msp](http://www.med.illinois.edu/msp) (<http://www.med.illinois.edu/msp>).

## Financial Aid

Fellowships, teaching and research assistantships, and waivers of tuition and some fees are available in the department for MA/MS and Ph.D. students.

- Master of Arts or Master of Science in Geography (<http://catalog.illinois.edu/graduate/graduate-majors/geography/ma-ms>)
- Professional Science Master's in Geographic Information Science (<http://catalog.illinois.edu/graduate/graduate-majors/geography/psm-gis>)

## Doctor of Philosophy in Geography

Admission presupposes distinction in undergraduate and graduate study. In the doctoral program, the student develops depth in the program chosen for specialization and further advances in research competence. A student must complete the course requirements as determined by an individually planned program, initiate and complete research projects, and qualify for candidacy by passing the departmental qualifying and preliminary examinations. Although there is no departmental foreign language requirement, students may study a foreign language as a research tool.

### Entering with approved M.S./M.A. degree

GEOG 471	Recent Trends in Geog Thought	4
GEOG 491	Research in Geography	2
Doctoral students are required to demonstrate competence in a specific research technique		
Departmental minor		16
Students must fulfill program requirements specific to his/her specialty area		
GEOG 599	Thesis Research (4 min applied toward degree)	4
Total Hours		64

### Other Requirements <sup>1</sup>

Other requirements may overlap

Minimum Hours Overall Required	24
Within the Unit:	
Qualifying Exam Required	Yes
Preliminary Exam Required	Yes
Final Exam/Dissertation Defense Required	Yes
Dissertation Deposit Required	Yes
Minimum GPA:	3.0

### Entering with approved B.S./B.A. degree

At least two graduate-level courses on analytical research methods (At least one of these courses must be in geographic information systems (GIS) or related geospatial techniques)

GEOG 471	Recent Trends in Geog Thought	4
GEOG 491	Research in Geography	2
Doctoral students are required to demonstrate competence in a specific research technique		
Departmental minor		16
Students must fulfill program requirements specific to his/her specialty area		

GEOG 599	Thesis Research (4 min applied toward degree)	4
Total Hours		96

### Other Requirements <sup>1</sup>

Other requirements may overlap

Minimum 500-level Hours Required	12 (8 in Geog)
Overall:	
Must complete a major research paper of publishable quality approved by the student's advisory committee.	
Qualifying Exam Required	Yes
Preliminary Exam Required	Yes
Final Exam/Dissertation Defense Required	Yes
Dissertation Deposit Required	Yes
Minimum GPA:	3.0

<sup>1</sup> For additional details and requirements refer to the department's Graduate Programs (<http://www.geog.illinois.edu/grad>) and the Graduate College Handbook (<http://www.grad.illinois.edu/gradhandbook>).