Geography, Ph.D.

The Doctor of Philosophy program in geography focuses on investigating the environmental consequences of human decisions, the social implications of environmental change, and the geographic information science that enables these studies. Central to the department’s studies are the theories, methods, and models of environmental, social, and geographic information science. Within this broad domain, the department has strengths in environmental justice, environmental modeling, GIScience and GIS, land use and its environmental consequences, urban ecology, sustainability, climatology, and health geography.

The department provides opportunities for graduate students to gain practical experience through service as departmental teaching or research assistants. Graduate students often present their research at professional conferences and publish their work in academic journals. These presentations and papers can be the product of independent research or research projects led by a faculty member.

Learning Outcomes

Students who successfully complete the doctoral program in the Department of Geographical and Sustainability Sciences will demonstrate:

- both broad knowledge of the field of geography and deep knowledge in their area of research concentration;
- an ability to communicate their research concisely and effectively to both general and specialist audiences in written and verbal formats;
- an ability to formulate research questions; select, design, and apply appropriate research methods (e.g., testable hypotheses, data collection, management, analytical techniques); and utilize critical thinking skills to build knowledge, theory, and/or practice in their area of research concentration;
- competence in teaching geography, environmental, or sustainability related courses; and
- understanding of and an ability to operate under professional standards of ethical conduct.

Requirements

The Doctor of Philosophy with a major in geography requires 72 s.h. of graduate credit and is designed to be completed in four or five years. Students must maintain a program g.p.a. of at least 3.00.

The degree prepares students for college and university teaching and for advanced research. It provides study programs that lead to broad knowledge of a field of geography and its literature and to special expertise in a subfield.

Students may enter the Ph.D. program upon completing an undergraduate degree or with advanced standing corresponding to previous graduate education.

All Ph.D. students take the following courses. They take GEOG:7000 Geography Colloquium (1 s.h.) each semester they are in residence.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG:5010</td>
<td>Fundamentals of Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG:5050</td>
<td>Research and Writing in Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

GEOG:7000 Geography Colloquium (taken each semester) 1

Two courses in geography numbered above GEOG:5001 6

Two research seminars chosen from GEOG:6500 through GEOG:6900; each course for 3 s.h. 6

Students complete a set of research milestones, including a research paper, an area of concentration bibliography, and a written qualifying examination in the discipline. With the approval of the dissertation advisor, each student submits a dissertation proposal to the dissertation committee for critical comments, oral questioning, and approval. Once the dissertation is completed, an oral defense of the dissertation is held.

More detailed information about Ph.D. requirements is provided in the department's Manual for Graduate Degree Requirements; contact the Department of Geographical and Sustainability Sciences.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

A bachelor's degree with a major in geography is not required, but applicants must have an undergraduate background relevant to the field. Strength in social science, environmental science, or geographic information science and interest in exploring the spatial perspectives that characterize modern geography are important in admission decisions. Depending on their prior training, graduate students may be required to take courses that are prerequisites for coursework in their chosen area of graduate study; credit earned in prerequisites does not count toward the graduate degree.

Application materials should include an undergraduate transcript with grade-point average, scores on the Graduate Record Examination (GRE) General Test, three letters of recommendation, and an essay in which applicants state their reasons for wanting to study geography at the University of Iowa.

Applicants whose first language is not English must submit official test scores to verify English proficiency. Applicants can verify English proficiency by submitting official test scores from the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS), or the Duolingo English Test (DET).

New graduate students whose first language is not English are required to take a speaking proficiency test when they arrive at the University; eventually they take the English Language Performance Test (ELPT). Students must be fully certified by the ELPT before they begin their fourth semester in order to be considered for funding in succeeding semesters. Students who do not pass the tests are required to take Teaching Assistant Preparation in English (TAPE) courses until they have achieved proficiency in spoken English.

Financial Support

A number of graduate teaching and research assistantships are available. In addition, outstanding applicants and underrepresented minorities are eligible for several fellowships. Awards are based on merit. In giving awards, the department pays particular attention to grade-point average, especially for the junior and senior years; scores on
the Graduate Record Examination (GRE) General Test; letters of recommendation; and fit of a student’s objectives with department specializations.

Applications for graduate appointments must be received by January 1. Applications for fellowships are due by January 15.

**Career Advancement**

The Doctor of Philosophy program prepares students to carry on creative and productive research in selected areas of geography. University of Iowa graduates hold positions on college and university faculties, in private research organizations, and in business and government.

Geography majors are encouraged to participate in an internship. The department maintains close ties with the Iowa Department of Natural Resources and other local agencies that offer internships.

The application of GIS to social, economic, and environmental problems has increased considerably during the past decade. This trend is likely to continue into the future; in fact, the U.S. Department of Labor has identified the area as one of its 14 high-growth industries. GIS presents an abundance of career opportunities for geography graduates in local, state, and federal government agencies, as well as in the private sector.

The department’s faculty members help students apply for postgraduate programs and contact potential employers.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

**Academic Plans**

**Sample Plan of Study**

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

**Geography, Ph.D.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG:5010</td>
<td>Fundamentals of Geography</td>
</tr>
<tr>
<td>Geography course</td>
<td>3</td>
</tr>
<tr>
<td>Elective course</td>
<td>3</td>
</tr>
<tr>
<td>GEOG:7000</td>
<td>Geography Colloquium</td>
</tr>
</tbody>
</table>

**First Year**

**Fall**

- GEOG:5010 Fundamentals of Geography 3
- Geography course 3
- Elective course 3
- GEOG:7000 Geography Colloquium 1

**Hours** 10

**Spring**

- GEOG:5050 Research and Writing in Geography 3
- Geography course 3
- Elective course 3
- GEOG:7000 Geography Colloquium 1

**Hours** 10

**Second Year**

**Fall**

- Elective course 3
- Elective course 3
- Elective course 3
- GEOG:7000 Geography Colloquium 1

**Hours** 10

**Spring**

- Elective course 3
- Elective course 3
- Elective course 3
- GEOG:7000 Geography Colloquium 1

**Hours** 10

**Third Year**

**Fall**

- Qualifying Exam
- Elective course 3
- Elective course 3
- Geography research seminar 3
- GEOG:7000 Geography Colloquium 1

**Hours** 10

**Spring**

- Oral Comprehensive Exam and Dissertation Prospectus
- Elective course 3
- Elective course 3
- Geography research seminar 3
- GEOG:7000 Geography Colloquium 1

**Hours** 10

**Fourth Year**

**Fall**

- Elective course 1
- GEOG:7999 Thesis 3
- GEOG:7000 Geography Colloquium 1

**Hours** 5

**Spring**

- GEOG:7999 Thesis 6
- GEOG:7000 Geography Colloquium 1
- Final Exam

**Hours** 7

**Total Hours** 72

---

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Must be numbered above GEOG:5001.

c Work with faculty advisor to determine appropriate elective coursework and sequence.

d Required every semester.

e Written exam typically taken by the end of the fifth semester; refer to the Graduate Handbook for specifics.

f Choose from courses numbered 6500 through 6900.

g Typically completed by the end of the sixth semester.

h Dissertation defense.