MASTER OF ARTS IN GEOGRAPHY

STUDENT HANDBOOK

2012

Revised 4/10/2012

DEPARTMENT OF GEOGRAPHY, ENVIRONMENT, AND PLANNING
GEOGRAPHY MASTER OF ARTS PROGRAM

The Master’s Program in Geography at the University of South Florida serves the needs of a growing urban population in one of the largest metropolitan areas in the southeastern United States. This program provides the theoretical foundation and methodological expertise necessary to conduct publishable-quality geographic research, as well as hands-on experience for real-world professional opportunities. Course offerings emphasize human geography, environmental geography, and geographic information science (GISc) and spatial analysis.

ADMISSION REQUIREMENTS

**Background Requirement**
Students wishing to gain admittance into the Geography M.A. program must have a baccalaureate degree or its equivalent from an approved college or university. Typically, applicants have baccalaureate degrees in geography. However, applicants with degrees in other disciplines are also encouraged to apply. Those students admitted without a degree in geography will be required to take selected undergraduate courses as determined by the Graduate Program Coordinator. At a minimum, incoming students without a degree in Geography will be required to take the following courses:

- GEA 2000  World Regional Geography
- GEO 2200  Introduction to Physical Geography
- GEO 2200L  Introduction to Physical Geography Lab
- GEO 2400  Human Geography
- GIS 3006  Computer Cartography

If a student has taken a course similar to one of the previously listed courses, the requirement may be waived.

**Grade Point and Graduate Record Exam (GRE)**
Students must have a minimum grade point of 3.0 (on the four point scale) for the last 60 credits taken as an undergraduate, and the submission of GRE scores is required. The GRE must be taken within five years preceding the application and the score submitted regardless of the grade point average. GRE scores must be submitted directly to the Graduate Admissions Office with your graduate application.

**Letter of Intent**
A letter of intent must be submitted to the department prior to admittance. The letter should outline the applicant's specific academic interests and goals, and indicate which faculty member(s) the applicant is potentially interested in working with, as her/his thesis advisor (please refer to the list of Geography Division faculty on page 19).

**Letters of Recommendation**
At least two letters of recommendation must be submitted to the department prior to admittance. Prospective students should solicit the letters of recommendation from sources who are familiar with the applicant's academic/work history and performance.
Submit your letter of intent and letters of recommendation directly to:

Graduate Program Coordinator of Geography  
Department of Geography, Environment, and Planning  
University of South Florida  
4202 East Fowler Avenue, NES 107  
Tampa, FL 33620-5250

**Application Deadlines**
The application deadlines for the fall semester admission are **February 15** for those applying for a Graduate Assistant (GA) position (**January 15** for international students seeking a GA position), and **April 1** if not applying a GA position. The application deadline for spring semester admissions and GA positions (if available) is **October 15**.

Students are encouraged to apply at least one month before the application deadline to allow time for processing of paperwork. For an application and application fee information, visit the Graduate Admissions Office (http://www.grad.usf.edu/newsite/admissions/main.asp) website. All application materials must be received by the application deadline to receive full consideration of admission.

**Advising**
When a student is admitted to the program, the Geography Graduate Program Coordinator will assign an advisor. The role of the advisor is to guide the student in selecting appropriate courses during the first semester and to suggest possible advisors and options for the student given his/her interests and needs.

Prior to selecting a program advisor, the student should meet with each of the graduate faculty in the Geography unit in order to determine the best advising "fit." Once the student selects a program advisor, the student, in consultation with the program advisor, should select a thesis committee. For students completing a thesis, the program advisor serves as the thesis advisor (major professor) as well. The advisor and at least one committee member must be a faculty member affiliated with the Geography division of the Department. The thesis advisor is responsible for guiding the student through thesis proposal preparation, thesis writing, and the thesis defense. Students may change advisors and committee members during their program.

**Graduate Student Supervisory Committee Expectations of Conduct**

The following expectations will be followed by all participants involved in a dissertation/thesis committee, including student, advisor (major professor) and committee members:

1) Regular communication of research between the student and the committee members.

2) If major changes occur to the proposed study, the student in consultation with their advisor, is responsible to call a committee meeting.

3) If concerns arise either with regards to what can be considered major changes between committee members or other matters pertaining to the pursuit of the proposed study, these
should be resolved by the Graduate Program Coordinator working in conjunction with an ad hoc committee appointed by the Director of Geography. If the Graduate Program Coordinator is the student’s major professor, then the Director of Geography will appoint another faculty to head that committee. If the concerns cannot be resolved at that level, then the matter will be referred to the Department Chair. If resolution cannot be reached at the departmental level, the student has the right to file a grievance with the College. If a student is considering such a step, they are encouraged to review the USF Graduate Catalog section on University Academic Grievance Procedures as time limits do apply.

FINANCIAL SUPPORT

Graduate Assistants
The department awards graduate assistantships annually. If a student would like to be considered for a graduate assistantship, he or she should complete the Graduate Assistantship Application (available at the USF Geography Department Website) and send it to the Graduate Program Coordinator along with other application materials. Graduate assistantships are awarded based upon grade point average, GRE scores, and original application materials. Students are usually given a two-year contract as a graduate assistant subject to satisfactory performance and academic progress. Only students pursuing the thesis option are normally eligible for an assistantship.

Graduate assistants are under the direct supervision of Director of Geography and the Graduate Program Coordinator who assign the specific duties to the students. Typically, students are required to supervise labs, grade exams, assist with audio-visual equipment, and teach specific lectures in courses. Students are often assigned to assist particular faculty. When this occurs, the faculty member is the direct supervisor of the graduate assistant.

Project (Research) Assistants
Project assistants are student assistants who are hired to assist faculty with grant-funded projects. Students hired as Project Assistants will complete, for example, computer analysis, cartography, fieldwork, and/or laboratory analysis related to the project. Students may be hired on salary, or on an hourly basis. The rate of pay varies from project to project. Students are selected for these positions based upon the skills needed for individual projects.

Other Financial Support
The Center for Urban Transportation Research (CUTR), the United States Geological Survey (USGS), and the Florida Center for Community Design and Research (FCCDR) sometimes hire Geography Department graduate students. Students may submit applications for employment at these offices. In addition, information on part-time and full-time jobs that become known to the department are posted on the bulletin board outside of the department office (NES 201).

Fellowships
Fellowships are funds received by the student for which no work is required. USF's Graduate Fellowship is awarded annually, on a competitive basis, to full-time students of outstanding academic potential. For specific information and an application, students are advised to contact
the Graduate School at (813) 974-2846, or check the Graduate School web page at www.grad.usf.edu

**Scholarships, Grants, Work Study, and Loans**
The Graduate School houses a Scholarship Library that allows students to access information on private sources of funding through computerized databases as well as source books.

The Office of Financial Aid administers the Federal Work Study Program as well as several loan programs. Students interested in loans or work study should apply as soon as possible after January 1 each year for the coming academic year, which starts in August. Application packets are available outside the Office of Financial Aid (SVC 1102) or by calling (813) 974-4700.

**DEGREE INFORMATION AND REQUIREMENTS**

**Degrees Offered**
The Department of Geography offers a Masters of Arts (M.A.) in Geography with a thesis and non-thesis option.

**Degree Requirements**

**Credit Hours:** Students must complete a minimum of 30 semester hours of graduate level course work for the thesis option and 36 hours for the non-thesis option. Students in the thesis option must complete the core course requirements outlined below before they are eligible to enroll in thesis hours.

**Required Core Courses (Nine Hours):**
All thesis and non-thesis students must take the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 6058</td>
<td>Geographic Literature and History</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEO 6116</td>
<td>Perspectives in Environmental Thought</td>
<td>3 cr. hrs</td>
</tr>
</tbody>
</table>

Based upon the student’s area of interest, he/she must take one course from the following list of Quantitative or Qualitative course offerings:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 6166</td>
<td>Multivariate Statistical Analysis</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEO 6119</td>
<td>Geographical Techniques &amp; Methodology: Qualitative Research Methods</td>
<td>3 cr. hrs</td>
</tr>
</tbody>
</table>

**Regional:**
Students are strongly encouraged to complete at least one of the following regional courses:

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEA 6195</td>
<td>Seminar in Advanced Regional Geography</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEA 6215</td>
<td>Seminar in North American Geography</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEA 6745</td>
<td>Asian Geography Seminar</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEA 6252</td>
<td>Seminar in the Geography of the American South</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEA 6406</td>
<td>Seminar in Latin American and Caribbean Geography</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEA 6504</td>
<td>Seminar in European Geography</td>
<td>3 cr. hrs</td>
</tr>
</tbody>
</table>
Concentrations:
Students specialize in one of the three areas of concentration (tracks) offered and must select a minimum of three courses (9 credits) from the selected track. The three tracks include:

**Human Geography** studies the construction of space, place, and power. It encompasses the study of economic geographies (e.g., globalization and development), political geographies (e.g., geopolitical struggles and new social movements), and social and cultural geographies (e.g., identities and exclusions). Human geography is key to providing insights into contemporary spatial arrangements, including the role of cities within the global economy, locating urban-rural intersections in the production of uneven development, and how class, gender, and race shape struggles for social justice.

**Environmental Geography** links the study of nature and society and considers the ways in which conventional divisions between human and non-human (natural) worlds are bridged through the production of socio-natures. This understanding is crucial to explaining and ameliorating contemporary environmental problems, including the privatization of natural resources, inequalities in access to food and water, injustices associated with environmental hazards and undesirable land uses, and the role of human activities in spurring large-scale environmental change.

**GIScience and Spatial Analysis** concentrates on the use of advanced geospatial technologies, and the development and use of spatial analysis methodologies, to applied research problems in human and environmental geography. A thorough understanding of such geospatial technologies as Remote Sensing, GIS, and GPS, as well as modern methods of spatial statistical analysis, and emerging spatial analytical techniques such as agent-based modeling, is a critical aspect of developing appropriate approaches to the analysis of geographic data.

The following elective courses are available in each track:

**Concentration A: Human Geography**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 6058</td>
<td>Geographic Literature and History</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEO 6428</td>
<td>Seminar in Advanced Human Geography</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEO 6605</td>
<td>Contemporary Urban Issues</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEO 6475</td>
<td>Political Geography Seminar</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEO 6345</td>
<td>Technological Hazards and Environmental Justice</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEO 6545</td>
<td>Economic Geography Seminar</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEO 6627</td>
<td>Site Feasibility Analysis</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEO 6704</td>
<td>Transportation Geography</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEO 6119</td>
<td>Geographical Techniques &amp; Methodology:</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td></td>
<td>Qualitative Research Methods</td>
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</tr>
<tr>
<td>GEO 6166</td>
<td>Multivariate Statistical Analysis</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GEO 7606</td>
<td>Seminar in Urban Environments</td>
<td>3 cr. hrs</td>
</tr>
<tr>
<td>GIS 6307</td>
<td>Socioeconomic Applications of GIS</td>
<td>3 cr. hrs</td>
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A regional geography course (from the list on page 5) can be substituted for a course in the Human Geography concentration.
Concentration B: Environmental Geography
GEO 6116 Perspectives in Environmental Thought 3 cr. hrs
GEO 6345 Technological Hazards and Environmental Justice 3 cr. hrs
GEO 6209C Physical Geography Seminar 3 cr. hrs
GEO 6215 Geomorphology Seminar 3 cr. hrs
GEO 6217 Karst Geomorphology 3 cr. hrs
GEO 6255 Weather, Climate, and Society 3 cr. hrs
GEO 6263 Soils Seminar 3 cr. hrs
GEO 6286 Advances in Water Resources 3 cr. hrs
GEO 6288 Hydrological Systems 3 cr. hrs
GEO 6347 Natural Hazards 3 cr. hrs
GEO 6166 Multivariate Statistical Analysis 3 cr. hrs
GIS 6038C Advanced Remote Sensing 3 cr. hrs
GIS 6039 Readings in Remote Sensing 3 cr. hrs
GIS 6306 Environmental Applications of GIS 3 cr. hrs
GIS 6355 Water Resources Applications of GIS 3 cr. Hrs

Concentration C: Geographic Information Science and Spatial Analysis
GIS 5075 Global Positioning Systems 3 cr. hrs
GIS 6038C Advanced Remote Sensing 3 cr. hrs
GIS 6039 Readings in Remote Sensing 3 cr. hrs
GIS 6100 Geographic Information Systems 3 cr. hrs
GIS 6103 Programming for GIS 3 cr. hrs
GIS 6112 Spatial Database Development 3 cr. hrs
GEO 6115 Field Techniques 3 cr. hrs
GEO 6119 Geographical Techniques & Methodology: Applied Spatial Analysis and GIS 3 cr. hrs
GIS 6146 GIS Seminar 3 cr. hrs
GEO 6166 Multivariate Statistical Analysis 3 cr. hrs
GIS 6306 Environmental Applications of GIS 3 cr. hrs
GIS 6307 Socioeconomic Applications of GIS 3 cr. hrs
GIS 6355 Water Resources Applications of GIS 3 cr. hrs

The same course cannot be used to satisfy both the required core and concentration course requirements.

Core Course Substitutions
Course substitutions for required core courses are discouraged, however, under certain extenuating circumstances they are allowed. Students needing a substitution for one of the required core classes should produce a written petition and complete the department substitution form. Only comparable graduate level courses at the same level covering similar material can serve as a replacement. The student will need to provide a syllabus of that course to the Director of Geography, his/her advisor, and the Graduate Program Coordinator who can then approve or deny the request. Major professors alone do not have the authority to approve the substitution of any required core courses.
**Thesis Option**

Students take six credit hours of electives at a level of 5000 or higher, keeping in mind that a minimum of ten hours is required at the 6000-level. At least one of the electives must be taken outside of the student’s track excluding GEO 6908, 6918 and 6944. Electives may also be selected from courses offered outside of the Department, with the consent of the student’s advisor and the Graduate Program Coordinator. A maximum of six approved hours taken outside the department can be used in the student’s degree program. The remaining 6 credit hours are taken as Thesis (GEO 6971). A student in the thesis option can only apply three credit hours of Internship (GEO 6944), and three credit hours of Directed Research (GEO 6918) and/or Independent Research (GEO 6908) toward his/her degree program.

Students are expected to present a thesis research proposal to their thesis committee shortly before or after the completion of 18 credit hours (which is to include the three core courses). The thesis committee will be given at least one week to review the written proposal, after which the committee will meet with the student to discuss the proposal and make recommendations. This meeting will take place at least one semester before the semester in which the student plans to graduate.

Students must present the completed written thesis to their advisor for approval before sending the thesis to the thesis committee. The thesis committee should be given at least one week to review the thesis; any major problems should be raised at this stage by the committee. If corrections are necessary, they should be made at this time. The student must then complete a public thesis defense during the semester in which they plan to graduate. An evaluation is made of the student’s work and further changes to the thesis may be required.

Students must be enrolled in a minimum of 2 semester hours of thesis credit during the semester in which a thesis is submitted to the Graduate School.

**Non-thesis Option**

Students complete a total of 36 hours, with 27 hours of electives completed at a level of 5000 or higher, keeping in mind that a minimum degree requirement is 16 hours at the 6000 level. Students can also take up to 9 hours outside the department with the consent of their advisors and the Graduate Program Coordinator. Students can apply 3 credit hours of Internship (GEO 6944), 3 credit hours of Directed Research (GEO 6918) and/or Independent Research (GEO 6908) toward their degree program. Students must pass a comprehensive written examination that is administered during the semester in which they plan to graduate.

**Policy for Taking Graduate Courses outside USF and the Tampa campus**

Graduate courses offered at other universities or other USF campuses can have a different focus than those offered on the USF Tampa campus. Students must get approval from their advisors and the Geography Graduate Program Coordinator prior to taking any outside courses to verify that these courses will count toward their degrees. Additionally, only faculty on the USF Tampa campus can serve as the major professor/advisor for graduate students enrolled on the Tampa campus.
Department Policy on Academic Dishonesty
It is the student’s responsibility to review the graduate catalog’s section on academic dishonesty, which covers plagiarism. This section provides detailed examples of plagiarism, hence there should be no confusion on this matter. The university takes academic dishonesty extremely seriously and possible consequences of such actions include an F or FF grade for the class or even dismal from the university. Please consult the USF Graduate Catalog for more information: http://www.grad.usf.edu/catalog.asp

GUIDELINES FOR GEOGRAPHY M.A. COMPREHENSIVE EXAMS

Thesis Option:
1. The student is required to present his/her thesis research at a thesis defense.
2. As part of the thesis defense, an oral exam is also administered. The defense and oral exam is scheduled and organized by the student’s major professor, in consultation with the student’s Supervisory Committee and the Graduate Program Coordinator.
3. The exam can be completed only during the Spring and Fall Semesters.
4. A copy of the thesis must be made available in the department (second floor front desk) one week prior to the defense for public review. The student and her/his major professor are also responsible for posting appropriate public announcements regarding the thesis defense in order to be consistent with statutory requirements for a public meeting.

Non-Thesis Option:
1. The examining committee will be comprised of the student’s Supervisory Committee.
2. Non-thesis students are required to complete a six-hour long, written, closed book, comprehensive exam, which typically consists of series of questions that are prepared by the examination committee. Students are not allowed any outside materials during the exam, which is to be hand-written on paper supplied by the examination committee.
3. The exam can be completed during the spring or fall semesters, but not during the summer.
4. Students are encouraged to complete the exam during the last semester of their coursework. The exam must be completed no later than one semester after the student completes the coursework for the degree. You must be registered for two credits in that semester in the semester that the exam is completed.
5. All non-thesis examinations will be scheduled for the same day each semester (i.e. all students will sit for the exam at the same time), the date being set by the Graduate Director. Students must coordinate with their major professors when they will take the exam.

6. Questions are solicited and organized by the student’s major professor in consultation with the student’s examination committee.

7. The answers to the questions are evaluated by the student’s Supervisory Committee within two weeks of the exam.

8. If the answer to any question is determined to be incorrect or incomplete, the student may be required to retake that portion of the exam in the form of an oral exam that is only open to the committee. Students are encouraged to complete the oral exam in the same semester they completed the first written exam.

9. If the student fails all portions of the exam, they will have one opportunity to retake the entire exam. This second exam must be completed no later than the semester after the student receives notification that a second exam is necessary.

10. If it is determined that the student did not successfully complete his/her comprehensive exam after their second attempt, he/she will be dismissed from the program.

**Preparation Guidelines for the Non-Thesis Geography MA Comprehensive Exam**

1. The date of the comprehensive examination is set each semester by the Graduate Program Coordinator in consultation with other Geography faculty.

2. The date for the exam should be at least two months past the beginning of the semester in which the exam is to be completed, and no later than two weeks prior to the beginning of final exam week as scheduled by the university. The exam must be completed no later than one semester after the student completes the coursework for the degree. Please remember that students must be enrolled for at least two graduate hours in the semester they plan to graduate.

3. The student's non-thesis advisor in consultation with the already established two-person program committee will develop the exam.

4. At least six weeks prior to the exam, the student will be provided with preparation materials for the exam by the non-thesis advisor and the program committee.

5. These preparation materials can consist of the following:
   a. Specific themes for the question(s) to be asked on the exam. The information provided should be specific enough to allow the student to prepare on his/her own for the question(s).
   b. A reading list that consists of materials related to the question(s) to be asked on the exam. By reviewing and understanding this literature the student should be able to successfully answer the question(s) on the exam.
6. Any questions or concerns that the student has related to the comprehensive exam should be directed to his/her non-thesis advisor.

**Guidelines for Students Switching from the Thesis to Non-Thesis Option**

1. Students planning to switch from the thesis option to the non-thesis option should consult their advisors and the Graduate Program Coordinator prior to making any change.
2. Students switching to the non-thesis program will be required to complete all requirements set forth in the most current Graduate Catalog.
3. As per the guidelines set forth by the USF Graduate Handbook, if a student changes from thesis to non-thesis in a semester that he/she is enrolled in thesis hours, these credits can be exchanged without academic penalty if a Graduate Studies Petition is filed with Graduate Studies prior to the last day of the drop/add period.
4. If a student enrolled in the thesis option has already taken thesis credits, but elects to change to the non-thesis option, the accumulated thesis credits may not be exchanged, or converted to another non-structured credit. The thesis hours will remain in the transcript and will retain the “Z” grade.
5. Students switching from the thesis to the non-thesis option will be required to complete the comprehensive written exam as indicated in the “Guidelines for Non-Thesis Comprehensive Exams.”
6. Students can also transfer up to 9 graduate credits from other institutions for inclusion in their non-thesis program of study. Transfer courses intended to meet non-thesis Geography division requirements must be approved by the Geography Graduate Program Coordinator.
7. As per the non-thesis Geography Masters Degree guidelines in the most recent USF Graduate Catalog, no more than 9 graduate hours can be approved coursework from a discipline besides geography and no more than a total of 9 hours can be transferred into the program.
8. Graduate assistants who switch from the thesis to the non-thesis option will forfeit their assistantship at the end of that contract period.

**Note:** The non-thesis option is not available for students on graduate assistantships.
LIST OF GEOGRAPHY GRADUATE COURSES OFFERED

GEA 6195 SEMINAR IN ADVANCED REGIONAL GEOGRAPHY (3) Analytic study of a selected region of the world. Repeat once for credit, but region may not be repeated. (PR: GS in Geography)

GEA 6215 SEMINAR IN NORTH AMERICAN GEOGRAPHY (3) Advanced survey of historical and contemporary issues in North American geography including: west and non-west exchange, revolutionary transformation, nation-building, regional disparities, and continental relations among states. (PR: GS in Geography or CI)

GEA 6252 SEMINAR IN THE GEOGRAPHY OF THE AMERICAN SOUTH (3) Intensive examination of regional geographic studies and their application to the American South, integrating concepts related to the physical and cultural landscapes, economic growth and change, urbanizations, and cultural diffusion processes. (PR: GS in Geography or CI)

GEA 6406 SEMINAR IN LATIN AMERICAN AND CARIBBEAN GEOGRAPHY (3) Readings and discussions organized around an examination of regional and systematic analysis of selected topics of Latin American and Caribbean geography. Emphasis is on combining physical and cultural analysis of this region. (PR: GS in Geography or CI)

GEA 6504 SEMINAR IN EUROPEAN GEOGRAPHY (3) Readings and discussions organized around an examination of regional and systematic analysis of selected topics of European Geography. Emphasis is on combining physical and cultural analysis of this region. (PR: GS in Geography or CI)

GEA 6745 ASIAN GEOGRAPHY SEMINAR (3) Analysis of regional divisions and spatial variations within Asia. Examines the significance of Asia in the global context. Focus on political, economic, cultural, and historical geographies, including development, environment, religion and gender. (PR: GS in Geography or CI)

GEO 6058 GEOGRAPHIC LITERATURE AND HISTORY (3) The origins and development of the discipline as revealed through an examination of the principal written sources. (PR: GS in Geography, or CI)

GEO 6115 ADVANCED FIELD TECHNIQUES (3) Field examination of one region. Students will complete field work in human and physical geography in a selected area. (PR: GS in Geography or CI)

GEO 6116 PERSPECTIVES IN ENVIRONMENTAL THOUGHT (3) Analysis of the evolution of the major schools of environmental thought from antiquity to present-day green analysis, deep ecology, eco-feminism, and post-modern ecology. (PR: GEO 6058 or CI)

GEO 6119 GEOPGRAPHICAL TECHNIQUES AND METHODOLOGY (3) Analytic study of a technique or investigation into an aspect of methodology. Repeat once for credit, but topic may not be repeated. (PR: GS in Geography)
GEO 6166 MULTIVARIATE STATISTICAL ANALYSIS (3) Examination of advanced statistical approaches used by geographers. Descriptive, spatial and inferential statistics and multivariate analysis are highlighted. (PR: GS in Geography or CI, GEO 3164C)

GEO 6209C PHYSICAL GEOGRAPHY SEMINAR (3) Analytic study of one or more topics from physical geography. Selected problems may include hydrology, physiography, meteorology, climatology, soils, or vegetation, etc. May be repeated once. (PR: GS in Geography or CI)

GEO 6215 GEOMORPHOLOGY SEMINAR (3) Advanced examination of geomorphic processes and landforms with an emphasis placed on the formation and evolution of landscapes on a variety of scales. (PR: GEO 4372 or CI)

GEO 6217 KARST GEOMORPHOLOGY (3) An in-depth examination of the geomorphic aspects of karst landforms. The objectives, methods and results of karst geomorphic studies in which both field and laboratory analysis have been applied to geomorphic problems are reviewed. (PR: GS in Geography or CI)

GEO 6255 WEATHER, CLIMATE AND SOCIETY (3) This course explores the societal impact of weather, as well as the human impact on weather and climate. Students lead and participate in discussions on topics such as weather hazards, extreme temperature and human physiology, historical civilization and extreme climate, economic value of forecasts, weather modification, urbanization, and other land use change, anthropogenic aerosols, past and future climates. (PR: undergraduate general meteorology or CI)

GEO 6263 SOILS SEMINAR (3) Examination of how earth systems influence soil formation and variation. Detailed analysis of soils climosequences, biosequences, toposequences, lithosequences, chronosequences, and anthrosequences. (PR: GEO 4372 or CI)

GEO 6286 ADVANCES IN WATER RESOURCES (3) Water resources policies are viewed from theoretical and practical perspectives focusing on management strategies in different physical and human environments. (PR: GS in Geography or CI)

GEO 6288 HYDROLOGICAL SYSTEMS (3) A systematic approach to hydrology using the drainage basin as the fundamental unit of analysis is used to explore form and process, while modeling streamflows. (PR: GEO 4372 or CI)

GEO 6345 TECHNOLOGICAL HAZARDS AND ENVIRONMENTAL JUSTICE (3) examination of theories, debates, methods, and models that improve our understanding of human vulnerability to technological hazards and risks, with emphasis on issues of fairness and equity in the distribution and impacts of hazards. (PR: GS in Geography or CI)

GEO 6347 NATURAL HAZARDS (3) Analysis of natural hazards integrating principles of physical, social, economic, political, and technical forces that affect extreme geophysical events. (PR: GEO 4372 or CI)
GEO 6428 SEMINAR IN ADVANCED HUMAN GEOGRAPHY (3) Analytic study of a problem selected from aspects of the human landscape (urban, political, economic, population, settlement). (PR: GS in Geography or CI)

GEO 6475 POLITICAL GEOGRAPHY SEMINAR (3) Advanced investigation of geopolitical issues including: the human construction of territoriality, ethnic relations, the making of nations and states, the geopolitics of localities, and environmental policy making. (PR: GEO 4470 or CI)

GEO 6545 ECONOMIC GEOGRAPHY SEMINAR (3) An intensive examination of selected issues in economic geography including: regional development and decline; spatial labor market trends; business locational analysis; and comparative economic policy. (PR: GEO 4502 or CI)

GEO 6605 CONTEMPORARY URBAN ISSUES (3) Advanced survey of urban issues such as: industrial restructuring and urban development, inner-city ethnic relations, the geopolitics or urban governance, and urban culture. (PR: GEO 3602; GEO 4604 or CI)

GEO 6627 SITE FEASIBILITY ANALYSIS (3) A project-oriented geographic examination of urban real estate development and site feasibility practices. Hands-on course including concepts of real estate development patterns, urban growth, and site-specific factors related to feasibility of specific developments. (PR: GS in Geography, or CI)

GEO 6704 TRANSPORTATION GEOGRAPHY (3) Review of transportation issues and analysis, focusing on modeling and planning for flows of goods and people. Provides a hands-on approach to the use of GIS for such analysis. (PR: GEO 4114C; GEO 4700 or CI)

GEO 6908 INDEPENDENT STUDY (1-19 Var.) Independent study in which students must have a contract with an instructor. S/U.

GEO 6918 DIRECTED RESEARCH (1-19 Var.) Repeat. S/U. (PR: GR. ML, CC)

GEO 6944 INTERNSHIP IN GEOGRAPHY (3) The internship in Geography is designed to provide students the opportunity to work in an appropriate governmental agency to gain practical field experience. S/U. (PR: GS in Geography, CC)

GEO 6947 DIRECTED TEACHING (1-6 Var.) (PR: GS or CI)

GEO 6970 RESEARCH METHODS IN GEOGRAPHY (3) This course stresses conducting geographic research within the scientific method. Include aspects of both quantitative and qualitative research. Specific topics include sample design, data collection, defending and discussing results and conclusions, developing oral presentations, construction of written proposals and production of a thesis. (PR: GS and CI)

GEO 6971 THESIS: MASTER’S (1-19 Var.) Repeat. S/U. (PR: CC)
GEO 7021 DOCTORAL DISSERTATION PREPARATION (3) This course is designed to assist students in discovering, framing, and developing dissertation topics; to think creatively about the theoretical issues raised by their topics; to begin research on these issues; to draft a dissertation proposal; and to draft a dissertation outline. (PR: GS and CI)

GEO 7606 SEMINAR IN URBAN ENVIRONMENTS (3) This seminar will explore topics in the study of urban environments through readings, discussion, and research. Students will be exposed to a wide variety of perspectives and scientific methodologies related to various aspects of the urban environment. (PR: GS and CI)

GEO 7980 DOCTORAL DISSERTATION RESEARCH (2-15 var.) The dissertation will be a cohesive, original, and independent contribution to scholarship. The research is to be performed under the guidance of the major professor and the supervisory committee, which determine how many total dissertation hours each student completes (maximum 42 hours). (PR: Accepted into program, GEO 7920 and permission of the student’s advisor)

GIS 5049 GIS FOR NON MAJORS (3) An introduction to the concepts underlying digital information systems for non-geography majors and non-geography graduate students.

GIS 5075 GLOBAL POSITIONING SYSTEMS (3) Examination of the theory, operation and application of Global Positioning Systems (GPS). (PR: GIS for Non-Majors or permission of instructor).

GIS 6038C ADVANCED REMOTE SENSING (3) Study of digital image processing techniques. Topics include filtering techniques, geometric and radiometric normalization, and classification algorithms with emphasis on developing. (PR: GS in Geography or CI, GEO 4124C)

GIS 6039 READINGS IN REMOTE SENSING (3) Analytic study of selected topics in remote sensing. Discussions around topics include data acquisition, sensor systems, multispectral and radar image analysis, change detection, and integration of remote sensing with GIS. (PR: GIS 6038C)

GIS 6100 GEOGRAPHIC INFORMATION SYSTEMS (3) Spatial problem solving utilizing GIS mapping and statistical methods. The course is designed to give students hands-on experience in using computerized techniques for geographic analysis. (PR: GS in Geography or CI)

GIS 6103 PROGRAMMING FOR GIS (3) Examination of the concepts and techniques for the customization of Geographic Information Systems (GIS) using object-oriented programming. (PR: GEO 6157 OR CI)

GIS 6112 SPATIAL DATABASE DEVELOPMENT (3) Development and management of spatial data for use in a Geographic Information System (GIS), including creating, editing, modifying and validating spatial data. (PR: GIS 6100 or CI).
GIS 6146 GIS SEMINAR (3) Analytic study of selected topics in GIS. The course will familiarize students with case studies involving GIS applications in environmental studies, coastal modeling, and urban planning. (PR: GIS 6100 or CI)

GIS 6306 ENVIRONMENTAL APPLICATION OF GIS (3) Examination of GIS applications in agriculture, forestry, wildlife management, biodiversity conservation, environmental assessment, water resources, and pollution modeling. Use of advanced GIS analysis techniques relevant to the specific applications. (PR: GIS 6100)

GIS 6355 WATER RESOURCES APPLICATION OF GIS (3) Examination of GIS applications in water resources, including watershed analysis, pollution modeling, and water resources modeling. Use of advanced GIS analysis techniques relevant to the specific applications. (PR: GIS 6100 or CI)

MET 6149 – SAME AS GEO 6255.

PAD 6336 COMMUNITY DEVELOPMENT PROBLEMS AND STRATEGIES (3) Discusses community development principles and practices in historical and contemporary perspectives. Federal, state and local initiatives. Physical, social, and economic approaches to community development. (Cross-listed with GPY)
GRADUATE FACULTY ADVISORS IN GEOGRAPHY

Kevin Archer, Associate Professor, Ph.D. John Hopkins University (1990)
Dr. Archer’s research concerns the nature and implications of globalization, particularly political-economic and cultural. He also focuses on the increasingly post-political production of nature. His empirical work concentrates on North America, particularly Tampa Bay-Orlando, Celebration, and the Everglades as well as the European Union.

Pratyusha Basu, Associate Professor, Ph.D. University of Iowa (2003)
Dr. Basu's research broadly encompasses human, environmental and regional geography, with a specific focus on rural-urban intersections, struggles over access to agricultural and environmental resources, gender identities and the regional geography of India. Current research topics include: urban dairying and suburbanization in Delhi (India's capital), access to information technologies in rural India and the U.S., and anti-dam struggles along India's Narmada river. Dr. Basu mainly utilizes qualitative and ethnographic methods in her research.

Martin Bosman, Associate Professor, Ph.D. University of Kentucky (1999)
Dr. Bosman’s research focuses on global city formations, the political economy and ecology of urbanization, and the politics of place-competition. He is particularly interested in working with students on geographies of urbanization and globalization; gated communities and the politics of anti-urban economic development; and the rift in the metabolic relations between cities and nature.

Jayajit Chakraborty, Associate Professor, Ph.D. University of Iowa (1999)
Dr. Chakraborty’s research interests are located at the intersection of hazards geography, health geography, and urban geography, and encompass a wide range of environmental and social justice concerns. Specific topics include air pollution, environmental health, environmental justice, information and communication technologies, urban environmental change, and vulnerability to natural and technological disasters. His research utilizes GIScience and spatial statistical techniques.

Ruiliang Pu, Assistant Professor, Ph.D. Chinese Academy of Sciences jointly with University of California-Berkley (2000)
Dr. Pu’s research interests are in remote sensing, GIS, and spatial statistics with direct applications to natural hazard monitoring, land use/cover change detection, biophysical and biochemical parameters extraction, and terrestrial and coastal ecosystem studies. His current research topics include mapping and characterization of seagrass habitats using spacecraft observations, urban environmental studies using thermal and optical remote sensing data, and land surface temperature retrieval studies with thermal satellite imagery.

Steven Reader, Associate Professor, Ph.D. University of Bristol (England) (1989)
Dr. Reader’s interests are in using GIScience and spatial statistics for social science applications. His current interest is in public health applications, specifically the two issues of cardiovascular death and low birth weight. Dr. Reader is also engaged in developing spatial statistical methodologies, particularly in the analysis of point pattern data.