

GRADUATE HANDBOOK FLORIDA STATE UNIVERSITY DEPARTMENT OF GEOGRAPHY 2007 – 2008

This document contains information useful to both graduate students and faculty. It lists and defines requirements and responsibilities for our graduate degree programs. Please consult the links below for more details on policies and procedures not addressed here.

FSU Graduate Bulletin:

<http://registrar.fsu.edu/bulletin/grad/>

FSU Graduate and Professional Student Handbook:

http://www.gradstudies.fsu.edu/forms/graduate_handbook.pdf

Admission procedures are available from at <http://www.fsu.edu/~geog/admission.htm> and <http://www.admissions.fsu.edu/>:

New graduate student information: <http://gradstudies.fsu.edu/checklist.html>

The Department of Geography at The Florida State University offers graduate degree programs at the master's and doctoral levels designed to equip students with the technical skills and intellectual creativity required in a changing labor market, a proverbial balance between geographic methods and "the geographical imagination." Faculty and students working in the geography department investigate critical issues of human society and the physical environment, including the linkages between global and local processes, a hallmark of geographic inquiry. Within this larger set of concerns, individuals in the department study and devise solutions to specific problems related to deforestation, climate change, hunger and human health concerns, natural and technological hazards, transport and access, geopolitics and warfare, economic restructuring, and urban poverty.

The Department of Geography at Florida State University offers three graduate degrees:

Both a thesis and non-thesis **master's degree** in Geography. These master's programs are designed to provide students with training in geographic concepts, techniques, and analytical skills.

An applied non-thesis **master's degree** in Geographic Information Science. This one year program is designed to provide students with GIS skills in demand on the job market.

A **doctoral degree** in Geography designed to provide students with the methodological skills and theoretical perspectives necessary for undertaking independent, analytical research.

Programs of Study

Applied Masters of Science in Geographic Information Science

The M.S. program in Geographical Information Science (GISc) is aimed at individuals who wish to cultivate an understanding of geospatial technologies in mapping and data analysis. Students seeking the MS in GIS will learn how to describe, analyze, and communicate spatial patterns and processes, both in theory and in practice. The focus is on the understanding of GIS fundamentals and the applications of geographic information technologies (GIS, remote sensing, spatial statistics, and database management) to support environmental analysis, resource management, urban and regional planning, and socio-economic analysis. The master's program will help meet the regional and local demand for technical operators, developers, and managers of geospatial information across a broad range of applications.

Coursework

Students must earn 32 credits, including six hours in a capstone project. This option allows students to complete their degree in 12 months if they wish.

Required core courses

Students are required to take three core courses (14 credit hours) designed to provide a foundation for investigating geographic issues. Students must earn a grade of "B" or better in each of the core courses:

- GEO 5165 Quantitative Geography (3)
- GEO 5934 Remote Sensing with Lab (4)
- GEO 5157/GIS 5100 Advanced Geographic Information Systems (3)
- GEO 5159/GIS 5101 Geographic Information Systems with Lab (4)

Capstone Project

The capstone project is a 6-credit hour culminating experience to the program beyond the required course work. Candidates are required to demonstrate the familiarity with the tools of research and scholarship in geographic information science, the ability to work independently, and the ability to present the results of GIS-based analysis effectively. Upon approval, students can use a GIS internship as part or replacement of the capstone project. Capstone projects and internships are offered only in the summer terms and will be conducted under the direct supervision of a faculty member serving on the GIS Committee (Dr. Yang, Dr. Horner, or Dr. Mesev).

Elective courses

In addition to the required courses, each student selects at least four elective courses (12 credit hours) from the list of courses below. Before enrolling in an elective course not on the list below or taught outside of the department, students should consult with one of the GIS Graduate Committee (Dr. Yang, Dr. Horner, and Dr. Mesev). This is in part a partial list given that new courses are being develop and offered in our department and in other departments on campus.

- GEO 5934 Advanced Quantitative Geography (3)
- GIS 5038C Advanced Remote Sensing (3)
- GIS 5111 Spatial Modeling in GIS (3)
- GIS 5131 Geographic Visualization (3)
- GIS 5305 GIS for Environmental Analysis and Modeling (3)

GIS 5400 GIS Applications in Social Sciences (3)
ISM 5206 Database Development and Management (3)
URP 5279 Urban & Regional Information Systems Practicum (3)

Students are not allowed to use a DIS to substitute any regular course in the MS-GIS program.

Students who do not have adequate preparation for GEO 5165 (Quantitative Geography) will take GEO 4185 (Spatial Data Analysis) as a remedial course prior to taking Quantitative Geography. Graduate students taking Spatial Data Analysis must take the course as a regular 4000 level class and have it graded on an S/U basis. Credits earned from Spatial Data Analysis may not be applied to the minimum number of credits needed for the Master's degree.

Students who have taken courses similar to the core courses may petition for exemption. Requests for required core course exemptions are considered by the graduate program director in consultation with those teaching the pertinent required core course. If a student is exempted from a required core course, these credit hours must be made up in elective courses so that the total credit hours of Master's coursework totals at least 32 hours.

The University mandates that all master's degrees must be completed within seven years of entry into a program.

Master's of Science with Non-thesis Option

The non-thesis option of the Master's of Science (M.S.) program is designed as a flexible course of study allowing the student to develop a specialized program tailored to the student's interests in geography. Students entering this program generally seek the M.S. as a terminal degree. Those interested in using the M.S. program as a gateway to the Ph.D. program either at Florida State or elsewhere are strongly encouraged to pursue the Thesis Option.

Coursework

Coursework for the non-thesis option consists of a minimum of 32 credit hours.

Required core courses

Master's students pursuing the non-thesis option are required to take three core courses (9 credit hours) designed to provide a solid foundation for investigating geographic issues and applying geographic methods. Students must earn a grade of "B" or better in each of the core courses:

GEO 5058 Survey of Geographic Thought

GEO 5118 Geographic Research

GEO 5165 Quantitative Geography

Students who do not have adequate preparation for GEO 5165 (Quantitative Geography) will take GEO 4185 (Spatial Data Analysis) as a remedial course prior to taking Quantitative Geography. Graduate students taking Spatial Data Analysis must take the course as a regular 4000 level class and have it graded on an S/U basis. Credits earned from Spatial Data Analysis may not be applied to the minimum number of credits needed for the Master's degree.

If a student does not pass GEO 5165 Quantitative Methods with a B or higher, they may consult with the Graduate Coordinator about taking the course in another department. These outside courses can count toward the Quantitative Geography requirement only if the student has taken the course in Geography and made a B or lower: STA 5126 (Intro Applied Stats), URP 5211 (Planning Statistics), or EDF 5400 (Basic Descriptive and Inferential Statistics Applications).

Students who have taken courses similar to the core courses may petition for exemption. Requests for required core course exemptions are considered by the graduate program director, in consultation with those teaching the pertinent required core course. If a student is exempted from a required core course, these credit hours must be made up in elective courses so that the total credit hours of Master's coursework totals at least 32 hours.

Elective courses

In addition to the core courses, each student selects courses totaling at least 23 credit hours in consultation with her/his advisor. In combination with the three required core courses, the electives chosen should build towards an integrated program of study focusing on one or more major areas within the discipline.

Although students may register for an unlimited number of credit hours of GEO 5908 (Directed Independent Study), no more than six credit hours of GEO 5908 may count towards the 32 credit course hour minimum for the M.S. degree. Students may take electives from departments throughout the University with the approval of the graduate director or their major advisor. Only 9 credits from these non-Geography courses may be counted toward elective credits. Up to 3 credit hours of language course work can be counted toward elective credit for

the non-thesis M.S. Language courses must be taken for a letter grade and should be clearly relevant to the student's professional plans. Credits earned in GEO 5918 (Supervised Research) or GEO 5947 (Supervised Teaching) may not be counted toward the total credit hours required for graduation. The University mandates that all master's degrees must be completed within seven years of entry into a program.

Master's of Science with Thesis

The thesis option of the Master's program is designed to provide for and certify a student's mastery of the discipline. This requires both breadth of geographic knowledge, acquired through a range of coursework, and depth of experience, achieved through original research culminating in a thesis. Master's students planning to pursue a doctoral degree should take the thesis option. The Department offers both the Master's of Science (M.S.) and Master's of Arts (M.A.) degrees. Most students pursue the M.S., but those interested in earning the M.A. degree should consult the *FSU Graduate Bulletin* for detailed requirements in language and the liberal arts. MS-thesis students are required to have a major professor declared by the end of the first semester.

Coursework

Coursework consists of a minimum of 24 credit hours plus a minimum of six thesis hours.

Required core courses

Students are required to take three core courses (9 credit hours) designed to provide a solid foundation for investigating geographic issues relating to social and environmental problems. Students must earn a grade of "B" or better in each of the core courses:

GEO 5058 Survey of Geographic Thought

GEO 5118 Geographic Research

GEO 5165 Quantitative Geography

Two additional courses need to appear on your transcript in order to receive the MS degree with the thesis option: GEO 5971 Master's Thesis (6 hours total) and GEO 8976 Masters Thesis Defense. Thesis students will sign up for GEO 8976 in the semester they plan to defend their thesis.

Students who do not have adequate preparation for GEO 5165 (Quantitative Geography) will take GEO 4185 (Spatial Data Analysis) as a remedial course prior to taking Quantitative Geography. Graduate students taking Spatial Data Analysis must take the course as a regular 4000 level class and have it graded on an S/U basis. Credits earned from Spatial Data Analysis may not be applied to the minimum number of coursework credits needed for the Master's degree.

If a student does not pass GEO 5165 Quantitative Methods with a B or higher, they may consult with the Graduate Coordinator about taking the course in another department. These outside courses can count toward the Quantitative Geography requirement only if the student has taken the course in Geography and made a B or lower: STA 5126 (Intro Applied Stats), URP 5211 (Planning Statistics), or EDF 5400 (Basic Descriptive and Inferential Statistics Applications)

Students who have taken courses similar to the core courses may petition for exemption. Requests for required core course exemptions are considered by the graduate program director, in consultation with those teaching the pertinent required core course. If a student is exempted from a required core course, these credit hours must be made up in elective courses so that the total credit hours of Master's coursework totals at least 24 hours.

Elective courses

In addition to the core courses, each student selects at least five elective courses (15 credit hours) in consultation with the graduate advisor or major professor. Although students may

register for an unlimited number of credit hours of GEO 5908 (Directed Individual Study), no more than six credit hours of GEO 5908 may count towards the 24 credit hour minimum. Students may take electives from departments throughout the University that bolster the Department's offerings. Up to 6 credits from these non-Geography courses may be counted toward the 24 credit hour minimum. Please consult with your advisor or the graduate director before taking these outside courses. Up to 3 credit hours of language course work can be counted toward elective credit for the thesis M.S. Language courses must be taken for a letter grade and should be clearly relevant to the student's research. Credits earned in GEO 5918 (Supervised Research) or GEO 5947 (Supervised Teaching) may not be counted towards the total credit hours required for graduation.

MS Thesis

Several steps are required in the preparation of the master's thesis. The student and major professor first select two additional members of the Geography faculty to comprise a supervisory committee responsible for assessing the thesis. Second, the student prepares and presents to her/his committee a written thesis prospectus that identifies a substantive geographic topic and demonstrates familiarity with the literature and methods appropriate to its investigation. The prospectus is developed in consultation with the major professor. When the major professor deems it ready, the student calls a meeting of his/her committee and gives an oral defense of the prospectus.

Full-time students should plan to defend the prospectus by the end of the first academic year. Once the prospectus has been accepted, the student begins the research and writing process, working with the major professor on initial drafts and drawing the supervisory committee into the process over time. The final step involves an oral defense of the thesis after the complete working draft has been accepted by the major professor. The defense is open to departmental faculty and graduate students. Students should have a draft of their thesis approved by the University formatting officer in the Office of Graduate Studies well before the final submission is made. The deadline for submitting one's final, post-defense draft to the University typically is about five weeks before the end of the term. Since the student must leave time for the committee to read the defense draft of the thesis prior to the defense and also leave time for making post-defense revisions, the student should plan on submitting the defense draft to her/his committee nor less than two months prior to the end of the semester in which (s) he intends to graduate. Please note that the Office of Graduate Studies requires electronic submission of theses. The University mandates that all master's degrees must be completed within seven years of entry into a program.

A student who has completed the required course work and continues to use campus facilities but has not made a final thesis submission shall include in their required full-time load a minimum of two (2) hours of thesis credit per term. Those with underload permission must register for at least two (2) hours of thesis credit per term.

Required forms for the MS thesis degree

The student and the major professor are responsible for completing these required forms: A formal **program of study**, to be filed in the first year and submitted to the Graduate Director. A **prospectus/topic approval form** signed by all committee members after a successful defense of the proposed thesis research. A **defense announcement form**, submitted two weeks before the date of the thesis defense, and the documents required for the final thesis submission following a successful defense, are also required.

Forms for most of these can be obtained at: <http://www.gradstudies.fsu.edu/forms.html#student> and on the Organizations tab at <http://campus.fsu.edu> Please make sure to photocopy all completed forms and deliver them to the Graduate Director.

PhD Program

A doctoral degree involves an advanced, research-oriented program requiring the individual to demonstrate professional expertise in the theory and applications of geographic knowledge and to make original contribution to that knowledge base. The Doctor of Philosophy degree in Geography at FSU consists of a coherent program of coursework, a written and oral preliminary examination, and the successful completion and defense of a dissertation. PhD students should have a major professor declared before the end of the first semester following a year of matriculation. The University requires that the degree be completed within 5 calendar years from the time the student gains admittance to candidacy by passing the preliminary exam.

Coursework

Because the attainment of a doctoral degree indicates that an individual is capable of advanced, independent, and comprehensive research, course requirements are designed to maximize flexibility in accordance with the student's chosen area of concentration. Two years of full-time coursework (36 credit hours) are standard. Generally, full-time students take their doctoral exams toward the end of their second year or the beginning of their third year enrolled in the program. A student who has completed the required coursework, passed preliminary exams and submitted an application for Candidacy to the Office of the Registrar, and who continues to use campus facilities or receives faculty supervision must enroll in a minimum of two dissertation hours (GEO 6980) per credit term.

Required core courses

Students are required to take five core courses (15 credit hours) in geographic philosophy and methodology. Students must earn at least a "B" in each core course.

Three of these core courses are as follows:

GEO 5058 Survey of Geographic Thought
GEO 5118 Geographic Research
GEO 5165 Quantitative Geography

In addition to these three core courses, doctoral students must take two additional foundation courses to provide training in methodology. In consultation with their major advisor, select a course that emphasizes advanced study in:

1. the gathering and processing of data (e.g. through sampling, surveys, focus groups, interviews, reading of documents, participant observation, ethnography, etc.);
2. the analysis of data (e.g. through geovisualization, statistics, semiotic analysis, quantitative content analysis, grounded theory, literary deconstruction, spatial modeling, techniques using remote sensing and/or geographic information systems, etc.)

These requirements may be met by courses offered both within and outside of the Geography Department. Geography courses frequently used to meet this requirement include Advanced Quantitative Geography, Remote Sensing, and Qualitative Methods in Geography. Please note that Introduction to GIS may not be used to fulfill this methods core course requirement. **DIS courses cannot count toward this requirement.**

Students who have taken courses similar to the core courses at the master's level may petition for exemption. Requests for required core course exemptions are considered by the graduate program director, in consultation with the student's advisor and those teaching the pertinent required core course. Doctoral students who are exempted from one or more core courses do not need to make up the lost credits in additional elective courses; however, this decision will be made by the student's advisor and the Graduate Director.

Three additional courses need to appear on your transcript in order to receive the Ph.D. degree. You must register for the zero credit hour Preliminary Doctoral Examination (GEO 8964) in the semester in which you are planning to take comps. You must register for a total of 24 hours of GEO 6980 Dissertation. You must register for the zero credit hour Dissertation Defense (GEO 8985) in the semester in which you are planning to defend your dissertation.

Students who do not have adequate preparation for GEO 5165 (Quantitative Geography) will take GEO 4185 (Spatial Data Analysis) as a remedial course prior to taking Quantitative Geography. Graduate students taking Spatial Data Analysis must take the course as a regular 4000 level class and have it graded on an S/U basis. Credits earned from Spatial Data Analysis may not be applied to the minimum number of coursework credits needed for the Doctoral degree.

If a student does not pass GEO 5165 Quantitative Methods with a B or higher, they may consult with the Graduate Coordinator about taking the course in other departments. These outside courses can count toward the Quantitative Geography requirement only if the student has taken the course in Geography and made a B or lower: STA 5126 (Intro Applied Stats), URP 5211 (Planning Statistics), or EDF 5400 (Basic Descriptive and Inferential Statistics Applications)

Elective courses

In addition to the required core courses, doctoral students are required to complete a minimum of 21 hours of additional course credit hours. The student and major professor work closely to select additional formal courses and seminars as necessary to prepare for preliminary examinations and the dissertation. In addition to courses in the Geography Department, students may take graduate-level courses elsewhere in the University as appropriate. Some of the other departments at FSU most frequently utilized by Geography students include Political Science, Sociology, Economics, Urban and Regional Planning, Public Administration, Oceanography, Biology, Geology, Meteorology, Statistics, History, Communications, and Education.

Although students may register for an unlimited number of credit hours of GEO 5908 (Directed Independent Study), no more than nine credit hours of GEO 5908 may count towards the minimum 21 hours of elective course credit hours. Up to 3 credit hours of language course work can be counted toward elective credit for the PhD. Credits earned in GEO 5918 (Supervised Research) or GEO 5947 (Supervised Teaching) may not be counted toward the total credit hours required for graduation.

Students working toward the PhD from the BS will be required to take more electives such that the final number of hours of coursework is 42. Students working toward the PhD after earning a MS degree in the FSU Dept of Geography may receive credit for core courses, but will still be required to earn 6 hours of required methods courses and 21 hours of electives.

Doctoral Committee

Given the flexibility of doctoral work, it is very important that students identify a major professor and, in conjunction with the major professor, select additional members of their doctoral committee soon after entering the program. A doctoral committee should be assembled by the end of the first semester following a year of matriculation. The doctoral committee is responsible for charting the student's progress on an annual basis until completion of all degree requirements. The doctoral committee consists of three faculty members from within the Geography Department and a fourth member from outside the department. All faculty members who serve on doctoral examination committees and dissertation committees must hold doctoral advisory or doctoral directive status at FSU. You may check the status of faculty at: <https://netprod.oti.fsu.edu/graduatefacultystatus/ViewStart.aspx>

PhD Preliminary examinations

Following completion of their coursework, Ph.D. students must pass preliminary exams for admission to candidacy for the doctoral degree. There are two parts to the exam, a written component and an oral component.

The written exam is composed and administered by the departmental members of the student's doctoral committee. The outside committee member does not typically participate in the written exam; however, that decision is up to the student's major advisor. The written exam consists of three sets of questions, built around three fields of geographic inquiry. The first field, Geographic Thought and Methods, tests the student's ability to address philosophical and methodological approaches to geographic research. The other two fields cover two topical specialties chosen by the student in consultation with their committee. Typically, the second field is a major sub-field of the discipline (e.g., economic geography, geomorphology) while the third field is more specialized, although still broader than a dissertation topic (e.g., food and hunger, karst systems). Students are encouraged to compile reading lists for each field using material from coursework, directed individual studies, and independent readings, and to have these lists approved by committee members well in advance of the examination. Each set of questions is given as a 24-hour take-home exam, and the three components are to be completed within a period of nine days.

A student may retake only **one** of the three written components of the preliminary examination in full and may attempt this retake only once. Selected answers within a component can be rewritten without failure of the overall component. A majority vote of the departmental committee members is necessary for passage. Designations for performance in a given prelim field

Pass – Student satisfactorily answers all questions in the field. No revisions are necessary

Conditional Pass – Student satisfactorily answers most questions in the field. For those not answered satisfactorily, the student revises their answer to the unsatisfactorily answered question(s) and resubmits them to the committee. Once the committee finds the revised answer(s) to be satisfactory, the student receives a “pass” for that field.

Fail – The student answers an unacceptable number (as decided by the committee) of questions in a field in an unsatisfactory manner. The student is then given an entire new set of questions to answer in that field (a retaking of the field). A student may retake only one of the three written components.

The written exam is followed by an oral defense. A student may retake their orals exams once. The oral defense **includes the outside committee member** as well as departmental faculty. In the oral defense, the full committee will 1) use the platform of the oral defense to sound out the student's competency on the material in the written exam according to the criteria above; 2) make a ruling on the student's combined performance, written and oral; and 3) formalize a decision based on prelim performance as to whether the student should proceed immediately to candidacy, or if not, what steps need to be taken to acquire candidacy, unless the performance has been unsatisfactory at a level that negates any remediation. Failure to pass any component of the preliminary exam, written or oral, results in dismissal from the program.

Upon successful completion of the preliminary examination, the student is admitted to candidacy for the doctoral degree, and considered ABD. Any coursework credit hours for which the student is registered that semester may retroactively be reclassified as GEO-6980 dissertation hours (and thus be counted toward the 24 dissertation credit-hour minimum required for graduation). All requirements for the doctoral degree must be completed within five calendar years from the time the student is admitted into candidacy.

Doctoral Dissertation

Completion of the dissertation normally requires at least one year. After admission to candidacy, the student prepares a written dissertation prospectus that demonstrates the potential to conduct original research making a significant contribution to knowledge. Once the prospectus is deemed acceptable to the major professor, the doctoral committee, inclusive of the outside member, reads it and provides feedback. The student gives an oral defense of the prospectus and the doctoral committee passes the defense with a majority vote.

The student then begins the research and writing process, working with the major professor and doctoral committee as warranted, while signing up for the Dissertation course (GEO 6980) each semester. The final step involves an oral defense of the dissertation. The defense is publicly announced and open to departmental faculty and graduate students. The doctoral committee passes the defense by a majority vote. Final copies of the dissertation are submitted to the University in electronic form. Students should have a draft of their dissertation approved by the University Formatting Officer in the Office of Graduate Studies well before the final submission is made. The deadline for submitting one's final, post-defense draft to the University typically is about five weeks before the end of the term. Since the student must leave time for the committee to read the defense draft of the dissertation prior to the defense and also leave time for making post-defense revisions, the student should plan on submitting the defense draft to her/his committee not less than two months prior to the end of the semester in which (s) he intends to graduate. Please consult the FSU Graduate Bulletin for specific information about the Dissertation Defense.

A student who has completed the required course work and continues to use campus facilities but has not made a final dissertation submission shall include in their required full-time load (twelve semester hours if unfunded or nine semester hours if funded on an assistantship) a minimum of two (2) hours of dissertation credit per term. Those with underload permission must register for at least two (2) hours of thesis credit per term.

Program of study

A program of study, documenting proposed coursework and a general timeline should be submitted no later than the end of the first semester following a year of matriculation. This

program of study should be submitted in consultation with your major advisor and supervisory committee. The program of study does not have to be assembled in a formal committee meeting. Outside committee members are not required to sign off on your program of study. If you do not have a program of study in your file, you cannot be elected to candidacy following successful completion of your prelims.

Annual presentations of research

PhD students will be required to present a 5-minute presentation in front of the department each Spring. This research summarizes their research and degree progress over the last year. The major professor will make the decision as to whether the student is ready to give a focused, coherent presentation. PhD students who are not nominated by their major professor to present, or PhD students electing not to present, will be subject to a review by the Graduate Committee as to their suitability for continuing in the graduate program.

The presentation should outline research completed, results, and research plans for the following year. It is not a recitation of your vitae, nor is it an invitation for you to discuss topics that diffusely bear upon your research interests. First-year PhD students must appear to present their research ideas and goals. No Powerpoints or handouts permitted.

Presentations will be given in the spring during the 3:30 time slot reserved for departmental colloquia. A specific date will be forwarded to you at the beginning of the spring semester. All PhD students are required to attend.

Prior to the presentation, students must submit an electronic 250-word abstract of their presentation to the Graduate Director before their talk. This abstract will be placed in your departmental records, and disseminated the following year to the faculty so as to gauge your progress.

Annual review

To record and gauge academic accomplishments, each PhD student will undergo a review in consultation with their major professor and members of their committee each fall. Your committee, inclusive of the outside member, should be assembled by the end of the first semester after your first year of matriculation.

Residency requirement

After earning at least 30 hours of course credit or a master's degree at FSU, a doctoral student must register for 24 credit hours within a 12-month period. These credit hours may include dissertation hours (GEO 6980), regular class hours, or both.

Required forms for the PhD

The student and the major professor are responsible for completing these required forms: A **formal program of study**, to be filed in the first year and submitted to the Graduate Director. A **prospectus/topic approval form** signed by all committee members after a successful defense of the proposed dissertation research. **Annual reviews** are required for all PhD students on funding. An **admission to candidacy form** which acknowledges that the student is official ABD. A **defense announcement form**, submitted two weeks before the date of the thesis defense, and an **outside committee member oral defense form** are required at the close of a student's degree.

Forms for most of these can be obtained at: <http://www.gradstudies.fsu.edu/forms.html#student> and on the Organizations tab at <http://campus.fsu.edu> Please make sure to photocopy all completed forms and deliver them to the Graduate Director.

Course Descriptions

Geographic Thought and Methods

GEO 5058 Survey of Geographic Thought. Introduces students to current issues in geography as well as the history of the field. Emphasis is placed upon developing students' critical faculties in epistemology and encouraging them to become self-conscious about their own philosophical outlook and assumptions so that they can engage in ongoing debates. Topics include philosophical foundations (e.g. positivism, Marxism, phenomenology, feminism, postmodernism), movements within the discipline (e.g., cultural ecology, environmental determinism, quantitative modeling), and theories of explanation concerning the limits of generalization, theorization, and prediction, across time, space, and scale.

GEO 5118 Geographic Research. Survey of research design and methods, sampling frameworks, strengths and weaknesses of alternative strategies, reliability and validity measures, and methods of writing.

GEO 5165C Quantitative Geography. Introduces the use of descriptive and inferential statistics in geographic research, including chi-square tests, correlation techniques, analysis-of-variance, simple and multiple regression, and logistic regression. Emphasis is placed on applications using open-source software.

GEO 5934 Qualitative Methods. This course examines some of the philosophies and techniques for qualitative research, especially those frequently used in geography. Students will develop familiarity and skills in several qualitative research methods, become familiar with the kinds of questions social scientists use these methods to address, and get a clearer idea of how you might use them in your own research.

GEO 5934 Professional Development (Open to second year students only). This seminar facilitates the transition from the geography student's role as a relatively passive consumer of courses to her or his role as an independent researcher and communicator of knowledge. We consider the dissertation as the foundation to the career and think together about how to succeed at this potentially rewarding first research project. We examine strategies for placing well in the job market. Finally, we discuss effective ways to get funding, present research, publish, and teach.

GEO 5305 Field Methods. Hands-on experience in the techniques and applications of sampling and analyzing cultural and natural phenomena in local contexts through field based methodologies. Students implement GIS and quantitative/qualitative analyses related to a field project of their own design, and are required to write and orally communicate their results in a final paper and presentation.

GEO 5934 Advanced Quantitative Geography. This course is suitable for students with a good basic knowledge of statistics through inferential statistics and regression. The purpose is to provide an understanding of the various statistical methods used to describe, analyze, and model spatial data. Topics include exploratory spatial data analysis, geo-statistical data and models, lattice data, spatial regression, spatial point patterns, and principal component models.

GIScience Methods and Applications

GEO5934 Remote Sensing with Lab

This course emphasizes the understanding of aerospace remote sensing foundations and the use of remotely sensed data and image interpretation and processing techniques for environmental and urban applications. The course consists of four parts: concepts and foundations of remote sensing, characteristics and interpretation of aerial photographs, characteristics of various sensing systems, and an introduction to digital image processing techniques.

GIS 5038C Advanced Remote Sensing. This course focuses on quantitative approaches to the analysis of remotely sensed data. Quantitative methods in digital remote sensing image enhancement, normalization, rectification, georeferencing, classification, thematic information extraction, integration of remote sensing with GIS will be addressed.

GIS 5111 Spatial Modeling in GIS. This course introduces advanced spatial modeling theories and associated techniques in GIScience. Topics addressed include spatial optimization, GIS for transportation, spatial decision support systems, and other advanced quantitative techniques.

GIS 5131 Geographic Visualization. This course examines the design and implementation of effective visualization of geographic data, phenomena, patterns, and processes. Students explore trends in cartographic visualization methods, including interactive and animated mapping techniques.

GIS 5100 Advanced Geographic Information Systems. This course examines spatial cognition and geographic representation, spatial pattern analysis, linear modeling, spatial autocorrelation, spatial modeling and simulation, and digital terrain modeling and visualization.

GIS 5101 Geographic Information Systems. A hands-on course on GIS topics, including locational control, spatial data structures, spatial cartographic statistics, modeling and analysis, future trends in decision support, sensors, and geographic methods.

GIS 5305 GIS for Environmental Analysis and Modeling. Topics covered include space-time variability in environmental data, environmental data acquisition and integration, interpolating environmental data, error and uncertainty, environmental decision support systems, environmental modeling techniques, and the integration of geospatial technologies with environmental modeling systems.

GIS 5400 GIS Applications in Social Sciences

This course surveys the use of GIS for solving spatial problems in the fields of health, economic geography and real estate, housing, transportation, and criminology to illustrate how spatial analysis, techniques are used to address problems in a GIS environment.

GEO 5934 GIS Capstone Project. This course is designed for students in the GIS master's program. Through a capstone project students will demonstrate the familiarity with the tools of research and scholarship in GISci, the ability to work independently, and the ability to present the results of GIS-based analysis effectively. Upon approval, students can use a GIS internship as part or replacement of the capstone project.

Geography –Topical

GEA 5195 Advanced Area Studies. In-depth study of a particular world region, including historical development, cultural forms, landscapes, economy and politics; regions usually include Europe, Latin America, or East and Southeast Asia.

GEO 5056 Social Theory and Spatial Structures. Modes of contemporary theorizing in geography, including post-structuralism and postcolonialism.

GEO 5305 Biogeography. This course provides a foundation in biogeographical concepts as they apply to issues in resource management, land use planning, and environmental policy. Students are exposed to current ideas in vegetation dynamics, complex adaptive systems, fire ecology and wildfire policy, and wilderness debates.

GEO 5345 Disaster Preparedness and Hazards Mitigation. This course deals with natural hazards such as hurricanes and earthquakes and human-made hazards such as nuclear power and air pollution. Emphasis on effects on society and what can be done to reduce risk and public policy alternatives regarding responses.

GEO 5353 Human Dimensions of Global Environmental Change. This course surveys the multiple ways in which humans have initiated or accelerated changes in the earth's biophysical environment, including population growth, resource depletion, pollution and species destruction. It relates these topics to contemporary geographical theory.

GEO 5358 Environmental Conflict and Economic Development. This course examines controversies over the use, transformation, and destruction of nature, including political ecology.

GEO 5377 Natural Resource Assessment and Analysis. This course traces the historical development of policies concerning natural resources from the colonial period to the present. Current issues in conservation and environmental management are discussed.

GIS 5400 GIS Applications in Social Sciences.

This course surveys applications of GIS in social science research, including public health, demography, political science, sociology, and economics. Digital cartographic and spatial analytical techniques are introduced. **GEO 5934 Medical Geography.** This course surveys the relationship between human health and our environment, and the role of geographic information in public health research.

GEO 5417 Race and Place. This course integrates various concepts and topics concerned with the spatial construction and effects of race and ethnicity, including identity, segregation, political and cultural landscapes, and environmental justice.

GEO 5425 Cultural Geography. The study of the processes by which various cultural features have diffused throughout the world. Emphasis is on the contemporary cultural landscape, particularly that of the United States.

GEO 5465 Historical Geography. This course examines concepts, approaches and research methods appropriate to the analysis of past patterns of land use and life, and of the changing occupation of the face of the earth through time.

GEO 5472 Political Geography. Examines how political processes play out over space from the local to the global levels. Topics include electoral geographies, nationalism and war, and contemporary geopolitics.

GEO 5481 Military Geography. A survey of the geography of warfare, including: tactics and terrain, strategy and the theater of war, insurgency, war in cities, geopolitics, and strategy.

GEO 5555 World Systems Theory. Survey of international political economy, including the origins of the world-system, dependency theory, Wallerstein and his critics, and contemporary issues facing the global economy and its political and cultural dimensions.

GEO 5545 Economic Geography. In-depth examination of several themes in the analysis of economic landscapes, including input-output analysis, historical materialism, post-Fordism, services and telecommunications, and the global economy.

GEO 5605 Urban Geography. Close reading of recent literature in urban geography, stressing the urban division of labor and restructuring, urban social theory, suburbanization, the crisis of the inner city ghetto, urban politics and policies, and world cities.

GEO 5705 Communications Geography. This course is an examination of the geopolitics of telecommunications, the space-shrinking impact of technologies, and their economic and social effects, including cyberspace.

GEO 5934 Special Topics. A variety of subjects are offered on an occasional basis under the heading of "Special Topics."

GEO 5934 Bayesian Thinking. The course goal is to help students gain an appreciation for the Bayesian approach to data analysis and modeling and to provide them with tools for incorporating this perspective into their research. Students should have at least one formal statistics course.

GEO 5934 Place, Mobility, & Identity. This course focuses on multiple ways of considering "Place." In recent decades, scholars across a range of disciplines have questioned common sense notions of place and its relation to identity and mobility. If we live in a world increasingly characterized by movement and crossings, then what is the continuing significance of place? Does it still ground identity? Are there new ways of thinking about place that are simultaneously fixed yet mobile, local yet global, constraining yet liberating?

GEO 5934 Medical Geography. This course surveys medical geography, a sub-discipline that encompasses a broad range of geographical work on health and health care. This explores three groups of theoretical approaches within geography: ecological approaches, which systematically analyze relationships between peoples and their environments; spatial approaches, which employ maps and spatial statistics to identify patterns of single and associated variables; and social approaches, including political economy and humanist perspectives, which address issues related to both space and place.

GEO 5934 Transport and Accessibility. An examination of current issues, trends, and problems involving transportation. Topics considered include urban congestion, the efficacy of mass transit, the sustainability of air transport, securing transportation systems, and many others.

Individualized coursework

GEO 5908 Directed Individual Study (1-5 hours). (S/U grade only.) A course of specialized individual study jointly designed by a graduate student and faculty member concerning a particular topic. While students may take an unlimited number of DIS courses during their graduate career, only six hours of DIS course credit may be counted towards their minimum required number of course credit hours necessary to satisfy the requirements for the degree they are pursuing.

GEO 5918 Supervised Research (1-3 hours), (S/U grade only). May be repeated for credit to a maximum of 3 credits. Credit hours earned do not count towards the minimum number necessary to satisfy minimum degree requirements.

GEO 5947 Supervised Teaching (1-3 hours), (S/U grade only). May be repeated for credit to a maximum of 3 credits. Credit hours earned do not count towards the minimum number necessary to satisfy minimum degree requirements.

GEO 5971 Master's Thesis. (1-6 hours)

GEO 6980 Ph.D. Dissertation. (1 -12 hours)

GEO 8964r Preliminary Doctoral Examination. (0 hours)

GEO 8976 Masters Thesis Defense. (0 hours)

GEO 8985 Dissertation Defense. (0 hours)

Faculty Research Specializations

Students in the thesis master's program, should identify a major professor in their first year of study. PhD students should have a major professor no later than the second year. The student is free to request a change of major professor without prejudice at any time during the course of study). The major professor functions as the student's principal guide through the program and directs him/her through the thesis or dissertation. The major professor is also responsible for monitoring a student's progress in completing all requirements for the degree.

Dr. Jay Baker (Ph.D., University of Colorado, 1974), Associate Professor. Natural and technological hazards; environmental policy; environmental perception; behavioral geography; policy evaluation methods.

Dr. James B. Elsner (Ph.D., University of Wisconsin-Milwaukee, 1988), Professor. Climate and weather; hurricanes and hurricane hazards; weather of Florida and Puerto Rico; Chaos theory, fractals, and applications

Dr. Mark Horner (Ph.D., Ohio State University, 2002), Assistant Professor. Geographic information science; transportation; urban geography; spatial modeling; sustainability.

Dr. Lisa Jordan (Ph.D., University of Colorado-Boulder, 2006), Assistant Professor. Medical geography; geographic information science; population geography; migration; spatial statistics

Dr. Dan Klooster (Ph.D., University of California - Los Angeles, 1997), Associate Professor. Human-environment relations; Land-use change; Conservation and development; Deforestation; Mexico and Latin America.

Dr. Janet Kodras (Ph.D., Ohio State University, 1982), Professor. Poverty and hunger; economic and political restructuring; geographic dimensions of public policy; theories of the state.

Dr. Jonathan Leib (Ph.D., Syracuse University, 1992), Associate Professor. Political geography; elections; redistricting; political and cultural change in the American South; 'race' and ethnicity, geographic education.

Dr. Victor Mesev (Ph.D., University of Bristol, 1995), Associate Professor. Geographic information systems; remote sensing; spatial data analysis; urban geography.

Dr. Patrick O'Sullivan (Ph.D., London School of Economics, 1967), Professor. Geopolitics; terrain and tactics; nationalism and geographic identity.

Dr. Tony Stallins (Ph.D., University of Georgia, 2000), Associate Professor and Graduate Program Director. Biogeography; urban climatology; human-environment interactions; complex adaptive systems theory

Dr. Philip Steinberg (Ph.D., Clark University, 1996), Associate Professor. Governance of global spaces and global resources; spaces of transportation & communications; environment-development conflicts and social movements;

Dr. Barney Warf (Ph.D., University of Washington, 1985), Professor and Chair. Political economy of regional development; services; military spending; international trade; social theory and philosophy.

Dr. Xiaojun Yang (Ph.D., University of Georgia, 2000), Assistant Professor. GIS, remote sensing, urban modeling.

Dr. Tingting Zhao (PhD, University of Michigan, 2007). Assistant Professor. Impacts of urbanization on regional primary production; biomass trends under human and natural disturbance regimes; scaling effects on inference of remote sensing and GIS data

Student Finances and Funding

Tuition and Financial Assistance

2006-2007 tuition rate; may be subject to increase:

Full Time Status: 9 hrs /semester with a graduate assistantship; 12 hrs /semester without a graduate assistantship.

Florida Resident Rate per Credit Hour: \$199.78 + Fees: \$36.82 = \$236.60+ Transportation Fee (\$6.00) = \$242.60

Non-Resident Rate per Credit Hour: \$801.12 + Fees: \$66.88 = \$868.00 + Transportation Fee (\$6.00) = \$874.00

For more information, refer to the Student Financial Services Website: www.sfs.fsu.edu.

After one year of residence in Florida, out-of-state U.S. citizens can apply for in-state status, dramatically lowering tuition costs in a student's second year and beyond.

There are other ways to reduce the cost of tuition at FSU. For example:

Employees of the state government of Florida can use the state's tuition waiver program, which allows state government employees to sign up for six credit hours of classes per semester free of charge in the Master's or Doctoral program (FSU employees may also sign up for six credit hours of classes per semester for free).

Doctoral students from states in the American South without a Geography Ph.D. program (currently Alabama, Arkansas, Mississippi, and Virginia) can apply to pay Florida in-state tuition rates through the Southern Regional Education Board's Academic Common Market program.

Master's and Doctoral students who are permanent residents of countries or territories in Latin America and the Caribbean can apply for an FSU Latin American and Caribbean scholarship, which allows students from these areas to attend FSU at in-state tuition rates.

In-state residency

Out-of-state PhD students who are on funding are required to obtain in-state residency in their first year of study. Failure to do so will result in the termination of funding. Other students who also seek in-state residency should follow these instructions. It is very important to keep in mind that you must be a resident for one year before applying for in-state residency, however there are critical steps you must take upon arriving in Tallahassee.

- IMMEDIATELY file a Declaration of Domicile form at the Leon County Courthouse, Clerk of the Circuit Court, room 123 (488-7538). A valid Florida driver's license and an \$11.00 fee are required. You should do this as soon as you set foot into town as this will be the starting date from which a year's residency in Florida will be measured.
- Obtain the following: 1) Florida voter's registration, 2) Florida driver's license, 3) Florida vehicle registration, 4) Florida automobile insurance, and 5) a local bank account.

- Submit these document at the time you apply for residency, which is during the summer after the end of your first academic term: 1) Employment Memorandum/Statement of Independence letter obtained from the Graduate Director of the Geography Department, 2) a letter from your local bank documenting your membership, 3) membership in a Florida organization (i.e., Sierra Club), and 4) rent receipts

Applications for residency, along with supporting documents, must be submitted to the Residency Section of the Registrar's Office prior to the last day of registration for the term for which resident status is sought. Please consult the current FSU Graduate Guide for more information.

Department Assistantships

The Department offers a limited number of graduate assistantships. These require students to perform twenty hours of work per week for the Department as well as registering for at least nine credit hours per semester. In return, students receive in-state and out-of-state tuition waivers and a nine-month stipend of \$12,830. Work assignments for half-time assistantship holders typically involve having full responsibility for teaching one course, assisting faculty, or managing departmental computer facilities. PhD students teaching for the first time should consult a faculty member in the semester before they teach so as to learn about ordering textbooks and writing a syllabus.

Departmental assistantships are presently reserved for doctoral students. When funding offers are made, doctoral students are given an offer for four years with the condition that the Department reserves the right to withdraw funding due to student's poor performance (in studies or in performance of work duties) or to unforeseeable changes in Department finances. Doctoral students can extend their funding for a fifth year if funds allow. In some cases, the University provides funds for new students for their first year only. In these cases, the Department does not guarantee continuing funding and, if the students seeks further funds, (s)he must notify the Graduate Program Director by the end of January so that (s)he will be considered along with incoming students for funding. Summer funding for course instruction (currently \$2,000 per course) is provided whenever possible.

College of Social Sciences policy requires that funded out-of-state U.S. residents must fill out paperwork after their first year to become Florida residents. This change-of-status reduces the cost of the College's tuition waiver as well as student's out-of-pocket fees (which are not covered by tuition waivers). College of Social Sciences policy also mandates that tuition waivers can be used for courses outside the College only if the course content is closely related to the student's plan of study in geography (e.g., a biology course for a student writing a biogeography-based dissertation.)

University Funding

Both master's and doctoral applicants to the Geography graduate program are eligible to apply for University fellowships that carry a stipend of \$15,000 (or in some cases, \$20,000) over the academic year, plus remission of in-state and out-of-state tuition. Because these fellowships do not carry a service requirement, fellowship holders are expected to register for a course load of 12 credit hours. These awards are made on the basis of academic achievement and are highly competitive. Candidates wishing to be considered for these awards should have all applications materials submitted to the University and Department by mid-December. Information on University fellowships is available on-line at <http://www.fsu.edu/gradstudies/finances.shtml>.

For More Information

If you have further questions about the graduate program (e.g. potential course of study; selection of degree program; appropriateness of the department for your interests), contact Dr. Tony Stallins, Graduate Program Director, at (850) 644-8385 or jastallins@fsu.edu

Please consult the links below for more details on policies and procedures not addressed here.

FSU Graduate Bulletin:

<http://registrar.fsu.edu/bulletin/grad/>

FSU Graduate and Professional Student Handbook:

http://www.gradstudies.fsu.edu/forms/graduate_handbook.pdf

Admission procedures are available from at <http://www.fsu.edu/~geog/admission.htm> and <http://www.admissions.fsu.edu/>:

Florida State University
Graduate Student Fact Sheet for Domestic Students
2007-2008

1. **Academic Calendar**

Refer to the Registrar's website: <http://registrar.fsu.edu/> for important registration and class information.

2. **Student Credit Hours/Fees (2006-2007 tuition rate; may be subject to increase)**

Full Time Status: 9 hrs. /semester with a graduate assistantship; 12 hrs. /semester without a graduate assistantship.

Resident Rate per Credit Hour: \$199.78 + Fees: \$36.82 = \$236.60+ Transportation Fee (\$6.00) = **\$242.60**

Non-Resident Rate per Credit Hour: \$801.12 + Fees: \$66.88 = \$868.00 + Transportation Fee (\$6.00) = **\$874.00**

For more information, refer to the Student Financial Services Website: www.sfs.fsu.edu.

3. **Health Insurance Requirement and Health Insurance Supplement for Graduate Assistants**

Effective fall 2007, ALL new graduate students are required to show proof of adequate health insurance, either purchased through FSU or show comparable coverage as determined by Thagard Student Health Center. For insurance information including coverage and cost, go to the Thagard Student Health Insurance website at www.tshc.fsu.edu or call 850/644-4250.

The Office of Graduate Studies offers qualifying graduate assistants a \$500 supplement towards the purchase of the University-sponsored health insurance and will be applied at the time of purchase. For more information visit <http://gradstudies.fsu.edu/insurance.html>, or contact your department representative for details.

4. **Financial Aid**

Eligibility for student loans is determined by the completion of a Free Application for Federal Student Aid (FAFSA) online. Any other form of financial assistance (e.g. graduate assistantship, fellowships, etc.) should be reported to the Office of Financial Aid as soon as possible, as these amounts may affect your financial aid award amount. For more information, consult the Financial Aid website at www.finaid.fsu.edu or call 850/644-5716.

5. **Residency, In-State Status and Academic Common Market**

Graduate assistants who have lived in Florida for a twelve-month period **prior to their first day of classes** may apply for in-state residency. Procedures for obtaining residency are available from the University Office of Admissions website at <http://admissions.fsu.edu/>.

Academic Common Market: If you are an out-of-state student, and your state of residence does not offer the degree program you seek at any institution in your state, and is a participating state in the Academic Common Market, you may qualify for in-state status. For details, consult the Southern Regional Education Board website at www.sreb.org/programs/acm/acmindex.asp.

6. **New Graduate Student Orientation**

New graduate students should contact their academic program for specific departmental orientation information.

In addition to a departmental orientation, the Office of Graduate Studies offers a **New Graduate Student Orientation**. The Dean of Graduate Studies, Dr. Nancy Marcus, will welcome students. The goals of the orientation are to provide students with an understanding of what to expect academically and financially as graduate students; describe the professional ethics associated with graduate research and creative endeavors; and highlight FSU's academic and social opportunities and services available to graduate students. For information and to register for the Office of Graduate Studies orientation visit their website at <http://gradstudies.fsu.edu/orientation.html>.