

A topographic map of the state of Alabama, showing terrain elevation in shades of brown and green. The map is oriented vertically. Overlaid on the map is the text for the Department of Geography at the University of Alabama Graduate Manual for PhD students, dated 2018.

**Department of Geography
University of Alabama
Graduate Manual
PhD**

2018

The information contained in this handbook is subject to change. The Department of Geography reserves the right to change any provision or requirement at any time in order to fulfill its educational mission and exercise its educational responsibility. Students are expected to adhere to minor changes made within one year of program entry.

DEPARTMENT OF GEOGRAPHY

The Department of Geography at the University of Alabama is housed in Farrah Hall with research laboratories in the Biology Building. The Department of Geography awards a PhD in Geography, in addition to a MS degree. Normally, three to five years are required to complete the PhD. The student must concentrate his/her studies in one of four areas: Earth System Science; Environment and Natural Resources; Environment and Society; or Geographical Information Sciences.

Several specialized departmental support facilities and equipment for educational training and student and faculty research are available including, but not limited to:

Graduate Student Computer Lab—a shared-use space for geography graduate students that provides opportunities for computing, studying, and discussion with colleagues.

Map Library—a regional depository for the United States Geological Survey (USGS) and the National Geospatial Intelligence Agency (NGA), formerly the Defense Mapping Agency (DMA) which includes over 280,000 maps and 75,000 aerial photographs.

GIS/Remote Sensing Laboratory—a computing facility for digital image processing of remotely sensed data and GIS data input, database management, spatial analysis and manipulation, and information output. The facility offers the latest GIS and Remote Sensing software packages including ArcGIS and ERDAS Imagine.

Cartographic Research Laboratory—a cartographic and GIS map production facility. The lab is equipped to support both digital and photo-mechanical map production.

General Information

The University of Alabama, with a total enrollment of more than 38,000 students, is located in Tuscaloosa, a metro area of approximately 250,000 residents. In 1819, the Congress of the United States donated 46,000 acres of land within the State of Alabama for the endowment of a seminary of learning. The Board of Trustees of the University was created by the General Assembly of Alabama in 1821, and on 18 April 1831, the University was opened for the admission of students. The University's more than 300 accredited undergraduate and graduate degree programs provide students with a wide range of educational and career alternatives. Library facilities and services are provided to students through a system of discipline- and research-based libraries. The library system holds over two million catalogued items consisting

of books, journals, and microfilm materials and serves as a regional depository for United States Government publications.

Admission

Regular Admission to the PhD program requires a degree in Geography, Environmental Science, or a related discipline and sufficient GPA and Graduate Record Exam (GRE) scores. The GPA criterion is met with a quality point average, based on a 4.0 system, of 3.0 overall. The GRE criterion is a minimum total score of 300 on the GRE, with a minimum score of 3.0 on the analytical writing section required. GPA in graduate coursework should be higher than 3.0 (typically ≥ 3.5) and GRE scores should approximate those of admitted students in recent years (typically ≥ 312). A student must also have approval to work with a departmental faculty member as his/her program advisor. No students are admitted without consent of a member of the graduate faculty. The student must also supply a clearly written statement of purpose that outlines their motivation for earning the PhD, career goals, and academic interests. Typically, a MS/MA is required for enrollment into the PhD program, but exceptional students may be able to transition into the PhD program without completing all MS requirements.

Conditional Admission to the PhD program is not permitted.

Non-degree student status permits a student to enroll in a maximum of 12 hours of graduate coursework. Non-degree students must be eligible for the department's conditional admission. Upon the successful completion of a maximum of 12 graduate course credit hours, if the student wishes to continue graduate level coursework, he/she will have to reapply to the Graduate School as a degree-seeking student. For acceptance as a degree-seeking student he/she must contact and be approved to work with a departmental faculty member as his/her program advisor. Such students are not allowed to take GY500 or GY523.

Application instructions and additional departmental information may be obtained by contacting Graduate Studies Director Justin Hart (hart013@ua.edu).

Graduate Program Guidelines

The guidelines set forth below provide general and specific information to prospective graduate students and those presently enrolled in the PhD Geography Program. It is assumed that students will comply with the coursework requirements outlined in the University Graduate Catalog and meet any requirements specified by the Department of Geography, the Graduate School, and the University of Alabama. Typically, students are expected to complete all requirements for the PhD within three to five years.

Graduate Degree Plan of Study

Within six weeks of entering the program, each student must submit a proposed Graduate Degree Plan of Study to the Graduate Studies Director. The Plan of Study should be prepared in

consultation with the advisor. The Plan of Study may include prior coursework considered necessary to strengthen a student's ability to complete their program. Near the end of each semester during pre-registration the student is expected to meet with his/her program advisor regarding the status of his/her graduate work and to finalize course scheduling.

It is the student's responsibility to request from the Graduate Studies Director assistance in the assignment or change in assignment of a program advisor. If a program advisor reassignment is not approved, the graduate student may be terminated from the program.

Requirements

Coursework: The PhD program requires a minimum of 48 hours of coursework beyond the BS/BA (that may include up to 24 credit hours of approved graduate-level coursework transferred from a master's program and a maximum of 12 hours of non-thesis or non-dissertation research). Required courses include: 1) GY500 Research Methods and Traditions, 2) GY523 Quantitative Methods, 3) two graduate-level geospatial techniques courses, 4) a minimum of nine hours of 600-level seminar courses, and 5) a minimum of 24 hours of dissertation research.

Dissertation Committee: The student's dissertation committee must consist of a minimum of five members of the UA graduate faculty. The committee will be chaired by the student's advisor. It is expected that the relationship with the advisor will be one of apprenticeship, as the student moves toward a mastery of the craft of original research and publication, while gaining familiarity with the role of a colleague. The doctoral committee should be established by the end of the first semester in residence and should consist of at least two additional members of the UA Department of Geography and at least one external member. The majority of the committee must be faculty within the department. The external member(s) can be from another UA department or someone not affiliated with UA. The external member(s) must be listed as UA graduate faculty. The dissertation committee must be approved by the UA Graduate School Dean and any changes after the committee has been approved will require a change of committee form to be approved by the UA Graduate School Dean.

Candidacy Examination: By the end of the fifth semester in residence (not including summer) for students entering without a MS/MA degree, and by the end of the third semester for students entering with a MS/MA degree, students must pass candidacy examinations for admission to doctoral candidacy. The purpose of the examinations is to determine students' preparation for independent research. The examinations will include a written exam that will consist of a series of questions from general areas of geography as well as those directly related to individual students' subfield and specific research program. Questions for the examination are submitted by a candidacy committee, which will consist of the geography faculty members of the student's doctoral committee. The candidacy committee may choose to include questions from external committee members, although external member participation is not required. Although the format and content of the exam is at the discretion of the candidacy committee, the typical exam will occur over three days (e.g. Monday, Wednesday, and Friday of

a given week). The first day will focus on general knowledge of the discipline of geography, the second day will focus on the research area of interest to the student, and the third day will focus on the specific research topic that is intended to be the subject of dissertation research. Subsequent to the written exam, the student must also successfully pass an oral examination given by the candidacy committee on the student's program of study and related areas. A student may take the oral and written examinations twice. Failing either of the examinations twice results in dismissal from the program. The examinations should be completed at least nine months before the degree is to be awarded.

Dissertation Proposal: By the end of the sixth semester in residence (not including summer) for students entering without a MS/MA degree, and by the end of the fourth semester for students entering with a MS/MA degree all PhD students must publicly defend a presentation of their dissertation research proposal. The dissertation committee will meet with the student in private following the public presentation. The student has two chances to successfully defend the proposal. If the student fails to pass the proposal defense on the second attempt they will be expelled from the program. A successful pass is met by the majority vote of the dissertation committee. The dissertation proposal must be passed by the end of the fifth semester in the PhD program. Failure to pass by this date will result in expulsion.

Dissertation Defense: All PhD students must publicly defend a presentation of their dissertation research. A draft of the dissertation should be provided to all members of the dissertation committee at least two weeks prior to the date of the defense. Notice of the dissertation defense must be given to the department two weeks prior to the defense date. The defense should be advertised with posted flyers and emails to the department faculty, staff, and students with the date, time, and location of the event included. A pass is met by majority vote of the dissertation committee. The final version of the dissertation must be approved by the dissertation committee and submitted to the UA Graduate School.

Dissertation Requirements: A dissertation showing the ability to conduct independent research and skill in organization, writing and presentation must be prepared on a topic in the major field. It must constitute an original contribution to knowledge. Early in the process, the subject of the dissertation must be approved by the dissertation committee of the major department or division and by the Dean of the Graduate School.

All parts of both traditional and article-style dissertations must conform to the provisions set forth in A Student Guide to Preparing Electronic Theses and Dissertations.

All doctoral candidates must give members of the dissertation committee a minimum of two weeks to read the dissertation before the date of the required final oral examination.

Article-Style Dissertations

This approach is intended for doctoral students whose dissertation will consist of a number of related manuscripts or articles that represent independent research. This option is only available with approval from the student's dissertation committee.

Article-style dissertations must be based upon research completed while the student is enrolled at The University of Alabama. For each article used, the student must be the first author, or equivalent, as defined by the discipline. As with traditional dissertations, the article-style dissertation must be the student's original idea. It must be a unified work and include a sequence of articles of publishable quality around a cohesive theme, with a comprehensive review of literature demonstrating an in-depth understanding of the unifying framework.

Article-style dissertations must include an introduction section that describes the studies, shows how they are related, and explains their significance. The articles should use connecting language to bridge each study to the next. These dissertations should also include a conclusions section that makes clear the importance of the studies, integrates the major findings, and discusses the implications for the overall topic. The introduction and conclusion sections should bookend the refereed articles.

Traditional Dissertation

A traditional dissertation typically contains five chapters: an introduction, three research chapters, and a conclusion chapter. However, students in consultation with the dissertation committee may decide to add additional chapters..

Admission to Candidacy

Admission to Graduate School does not imply admission of a student to candidacy for a PhD degree. Admission to candidacy is contingent upon the recommendation of the student's department and the approval of the Graduate Dean after the student has met the formal requirements for candidacy and has demonstrated sufficient preparation to pursue the graduate study and research required for the degree sought.

The application for admission to candidacy for the PhD degree must be filed at the University of Alabama. It must be approved by the time of registration for the semester in which requirements for the degree are completed. Approval will depend on: 1) the quality of the applicant's graduate work prior to the time the application is made, 2) the removal of any special conditions (including the successful completion of all pre-requisite deficiencies), 3) the certification of the major department that the student is well qualified to continue work toward completing a PhD degree, 4) passing of the PhD candidacy examination, and 5) passing of the dissertation proposal defense.

A student's program at the PhD-level must provide sufficient association with the resident faculty to permit individual evaluation of the student capabilities and achievements. Such association is exhibited by the student's engaging in full-time, continuous residence for a minimum of three semesters. All requirements for the PhD degree must be completed during the six calendar years immediately preceding the date on which the degree is to be awarded. Each candidate for a PhD must apply for the degree through the Office of the Graduate School

no later than the registration for the semester in which requirements for the degree are to be completed.

Graduate Assistantships

1. The Department of Geography awards graduate assistantships to students on a competitive basis. Normally, each assistantship requires the student to work 20 hours per week on their assigned responsibilities. Presently, the department offers assistantships in the Cartographic Research Lab, Map Library, GIS Lab, and as laboratory teaching assistants in introductory physical geography courses. Other types of funding may include graduate council fellowships (awarded by the Graduate School) and research assistantships contingent upon individual faculty members securing external grants.

2. Graduate assistantships are renewable awards. Renewability is determined by the Department of Geography based on a set of criteria specific to the assistantship, academic standing of the student, and progress being made toward successful completion of the graduate degree.

3. The University reserves the right to terminate a graduate assistant support package, including all parts, immediately and without prior notification if, in the judgment of the departmental Chair and concurrence of the Dean, such action is warranted.

4. The Department of Geography normally will not support a PhD student for more than five years.

International Students

All international students must be eligible to serve as Graduate Teaching Assistants by the end of their first semester in residence even if they will not serve as GTAs. This means each student must pass the ITAP or meet other university requirements to demonstrate eligibility. Students that fail to satisfy this requirement by the end of the first semester are subject to lose department funding and risk expulsion from the program.

Leave of Absence

Students that wish to take a leave of absence during their graduate education must make a formal request with justification in writing. The written request must be approved (signed) by the advisor and Graduate Studies Director and placed in the student's file. The student is not guaranteed funding upon their return to the program.

Other

1. Full-time graduate students typically carry a course load of 6 to 12 graduate credit hours per semester, unless special written permission is given by a student's program advisor. A copy of the letter is to be given to the Graduate Studies Director and placed in the student's permanent file.
2. A student entering the graduate program with a Non-Degree Student Status is not eligible to take GY 500 (Research Methods in Geography) or GY 523 (Quantitative Methods).
3. Students are not permitted to take any 300-level undergraduate course for graduate credit.
4. Internships may only account for a maximum of 3 credit hours towards completing the PhD degree and must be graded on the basis of Pass/Fail.
5. Students who do not complete their directed research according to the Graduate Degree Plan are subject to registering for 1–3 credit hours during any subsequent semester, including thesis defense during the summer, in which faculty advising is needed to complete their directed research projects.
6. Graduate students are encouraged to participate in ALL departmental functions, be an active member of Club Geography, become student members in the American Association of Geographers, the Southeastern Division of the AAG, and present their research at regional and national conferences.
7. Graduate students are expected to apply to the Graduate School for funding to attend conferences. The department typically helps students attend the Southeastern Division of AAG meeting and encourages students to participate in this meeting before presenting research at national conferences.

FACULTY

Seth Appiah-Opoku, Ph.D., Waterloo, 1997, Professor – urban and regional planning, environmental impact assessment, environmental planning and ecotourism, geography of Africa.

Bennett Bearden, J.D., Associate Research Professor and Director of Water Policy and Law Institute – water law and policy, environmental law, water policy analysis, watershed management, water-energy nexus, governmental relations and strategies and litigation.

Sagy Cohen, Ph.D., Newcastle, 2010, Associate Professor – global sediment and water monitoring, soil-landscape evolution modeling, geomorphology, geocomputation.

Kevin M. Curtin, Ph.D., UC Santa Barbara, 2002, Professor – GIS, facilities location science, transportation, urban and environmental resource allocation.

Lisa Davis, Ph.D., Tennessee, 2005, Associate Professor – geomorphology, watershed processes and dynamics, environmental change.

Luoheng Han, Ph.D., Nebraska, 1994, Professor and Associate Provost – remote sensing, water quality, GIS.

Justin Hart, Ph.D., Tennessee, 2007, Associate Professor and Director of Graduate Studies – applied forest ecology, silviculture, natural resources management, plant geography.

David Keelings, Ph.D., Florida, 2015, Assistant Professor – climatology, meteorology, quantitative methods, medical geography.

Matthew Lafevor, Ph.D., Texas, 2014, Assistant Professor – water, agroecology, environmental history, geography of Mexico and Caribbean.

Hongxing Liu, Ph.D., Ohio State, 1999, Professor – remote sensing, GIS sensor networks, modeling, hydrology, cryosphere.

Nicholas Magliocca, Ph.D., Maryland, 2012, Assistant Professor – human dimensions of global change, coupled natural-human systems, agent based modeling, GIS, spatial analysis.

W. Craig Remington, M.S., Florida State, 1981, Adjunct Professor and Cartographic Lab Supervisor – cartography, geography of Alabama.

Jason Senkbeil, Ph.D., Kent State 2007, Associate Professor – atmospheric hazards and applied climatology.

Wanyun Shao, Ph.D., Louisiana State, 2012, Assistant Professor – human dimensions of climate change, environmental risk perception, community resilience, environmental hazards and public health.

Douglas Sherman, Ph.D., Toronto, 1983, Professor and Chair – coastal and aeolian geomorphology, sediment transport, natural hazards.

Michael Steinberg, Ph.D., Louisiana State, 1999, Professor of New College and Geography – cultural ecology, biogeography, endangered species.

Matthew Therrell, Ph.D., Arkansas, 2003, Professor – paleoclimatology, dendrochronology, climate change impacts on environment and society.

Mary Wallace Pitts, M.S., University of London, UK, Instructor and Director of Undergraduate Studies – physical geography, natural hazards.

Joe Weber, Ph.D. Ohio State, 2001, Professor – transportation, urban geography, national parks, GIS.