

GEOGRAPHY, MS

The MS in geography offers four areas of study, including Earth system science, environment and natural resources, environment and society, and geographic information science.

In addition, the department offers a GIS certificate program that enables students to acquire technical and analytical skills.

The graduate program in geography prepares students to pursue further academic study and to work in a broad range of positions with federal, state, and local governments; environmental consulting firms; private conservation and resource management agencies; and educational institutions.

Admission

Admission into the Geography MS program typically requires an undergraduate degree in geography, environmental science, or a related discipline. The Department of Geography and the Environment at The University of Alabama offers the MS program in Geography with four areas of focus: 1) Earth system science; 2) Environment and natural resources; 3) Environment and society; and 4) Geographic information science.

The first step in the application process is to identify a member of the faculty who shares your research interests and is willing to serve as your potential Advisor.

In addition to the minimum Graduate School admission requirements, to be considered for regular admission an application must include:

- A clear statement of purpose. In the statement of purpose section (up to 2 pages), applicants should explain clearly and cogently: i) why you wish to earn the MS and what are your academic and career goals, ii) why our department is a good fit for you, iii) which faculty member has agreed to serve as your Advisor, iv) what experiences and background you have that will help you succeed in graduate studies. Note that no students will be admitted, without a potential Advisor from our faculty.
- A resume or curriculum vitae.
- Three letters of recommendation, which discuss and evaluate the student's writing skills, analytical abilities, and potential to excel at graduate studies and research.
- Academic/professional writing samples. These may include published research papers, conference papers, research or applied project reports, and term papers.
- GRE scores are not required by our graduate program. Submission of GRE scores is optional.

The decision for admissions will be made on the basis of a holistic review of an applicant's academic record, recommendation letters, professional experience, statement of purpose, writing and analytical skills, and the overall potential for academic success.

See the Admission Criteria section of this catalog for more information.

Curricular Requirements

The primary purpose of Master's degree program is to gain the skills, knowledge and expertise in their fields of study and to develop their research capability in a specific academic subject at an advanced level. The Master's program is designed to assist students either to continue their graduate studies at the PhD level or to meet the goals of their professions. Two plans/options are offered for the Master's degree.

The thesis option requires a total of 30 credit hours, including 7 credit hours of required courses (GY 500, GY 523, GY 601 Geography Colloquium) and 6 credit hours of thesis research. A minimum of 12 credit hours must be taken from courses in one of the four areas of focus. The remaining credit hours may consist of courses from any of the other areas of focus and/or the related courses offered in other departments with Advisor approval.

Students on the non-thesis option track are not generally eligible for department funding. This option requires a total of 36 credit hours, including 7 credit hours of program required courses (GY 500, GY 523, GY 601 Geography Colloquium) and 3 credit hours for non-thesis research projects (GY 598 Non-Thesis Research). A minimum of 18 credit hours must be taken from courses in one of the areas of focus. The remaining credit hours may consist of courses from any of the other three areas of focus, or related courses in other disciplines with the advisor and graduate program director's approval.

If a thesis-track student wishes to change to the non-thesis track, this change must be approved by the student's advisor and the Graduate Program Director. Any student who makes this change may be ineligible for department funding.

MS in Geography, Thesis Option

This option requires a total of 30 credit hours including 7 hours of program requirements and 6 hours of thesis research. A minimum of 12 credit hours must be taken from courses in one of the areas of focus including earth system science; environment and natural resources; environment and society; or geographical information techniques. The remaining 6 credit hours may consist of courses from any of the other three areas of focus and/or maybe selected from related courses offered in other disciplines with departmental approval (up to 6 of the 9 credit hours). A thesis committee should be established by the end of the first semester of residence and a thesis proposal must be defended by the end of the second semester of residence.

Code and Title		Hours
Required Courses		
GY 500	Research Traditions Meth In Gy	3
GY 523	Quantitative Methods	3
GY 601	Geography Colloquium	1
Area of Focus¹		12
Electives		5
Electives can be taken in Geography or outside of the department. Consult faculty adviser.		
Electives can include:		
GY 532	Spec Research In Geog	
GY 570	Special Topics	
GY 590	Internship	
Thesis Course		
GY 599	Thesis Research	6
Total Hours		30

MS in Geography, Non-thesis Option

This option requires a total of 36 credit hours, including 7 credit hours of program required courses (GY 500, GY 523, GY 601 Geography Colloquium) and 3 credit hours of non-thesis research projects (GY 598 Non-Thesis Research). A minimum of 18 credit hours must be taken from

courses in one of the areas of focus. The remaining credit hours may consist of courses from any of the other three areas of focus, or related courses in other disciplines with the advisor and graduate program director's approval.

Code and Title		Hours
Required Courses		
GY 500	Research Traditions Meth In Gy	3
GY 523	Quantitative Methods	3
GY 598	Non-Thesis Research	3
GY 601	Geography Colloquium	1
Area of Focus ¹		18
Geography Elective		8
Can include but not limited to:		
GY 532	Spec Research In Geog	
GY 570	Special Topics	
GY 590	Internship	
Total Hours		36

Footnote 1

Hours

Areas of Focus:

Earth System Science		
GY 504	Physical Geo of SE US	
GY 505	Dir Research Physical Geograph	
GY 509	Forest Ecosystem Restoration	
GY 512	Hydroclimatology	
GY 513	Applied Climatology	
GY 514	Climate Change and Health	
GY 516	Geostatistics Using R	
GY 517	Extreme Weather and Society	
GY 551	Global Environmental Change	
GY 572	Soil Science	
GY 585	River Hydrology	
GY 586	Watershed Science and Managmnt	
GY 589	Forest Eco Veg Analysis	
GY 591	Fluvial Geomorphology	
GY 602	Seminar in Climatology	
GY 610	Seminar in Forest Science	
GY 663	Seminar in Geomorphology	

Environment and Natural Resources

GY 504	Physical Geo of SE US	
GY 505	Dir Research Physical Geograph	
GY 509	Forest Ecosystem Restoration	
GY 510	Geography of National Parks	
GY 516	Geostatistics Using R	
GY 541	Land Use Regulations	
GY 545	Agriculture	
GY 551	Global Environmental Change	
GY 552	Environ Decision Making	
GY 553	Environment & Society	
GY 562	Land Use Science	
GY 572	Soil Science	
GY 573	Public Policy Water	
GY 577	Water Resources Management	

GY 585	River Hydrology	
GY 589	Forest Eco Veg Analysis	
GY 591	Fluvial Geomorphology	
GY 596	Forest Ecosystems	
GY 610	Seminar in Forest Science	
GY 663	Seminar in Geomorphology	

Environment and Society

GY 506	Dir Research Human Geography	
GY 510	Geography of National Parks	
GY 516	Geostatistics Using R	
GY 517	Extreme Weather and Society	
GY 541	Land Use Regulations	
GY 545	Agriculture	
GY 552	Environ Decision Making	
GY 553	Environment & Society	
GY 562	Land Use Science	
GY 566	Transport Geography	
GY 573	Public Policy Water	
GY 577	Water Resources Management	
GY 579	Planning Internship	
GY 581	Water Diplomacy	
GY 615	Seminar Human-Environment	

Geographic Information Science

GY 520	Remote Sensing I	
GY 529	Fundamentals of GIS	
GY 530	Intro Geographic Info Systems	
GY 532	Spec Research In Geog	
GY 534	GIS Internship	
GY 535	Remote Sensing II	
GY 536	Adv Geographic Info Syst	
GY 537	GIS for Transportation	
GY 539	GIS Programming	
GY 543	Location Science	
GY 574	Cartography Practicum	
GY 576	Gis Practicum	
GY 588	Digital Terrain and Watershed	
GY 630	Seminar in GIS	

Transfer Credit

Up to 12 credit hours or 25 percent of the required coursework may be transferred from another institution. Only courses in which a student earned a "B" grade or better may be transferred. For the detailed credit transfer information, please refer to Graduate School transfer policies:

Graduate School information on Transfer Credit.

Accelerated Master's Program

Graduate School information on the Accelerated Master's Program.

Comprehensive Exam/Capstone

For students completing the non-thesis option, a Qualifying Examination is required. The Qualifying Examination is an oral exam designed to assess the student's breadth and analytical ability in the discipline of geography. The examination will not be given before the student has successfully completed a minimum of 18 credit hours (of which 15 credit

hours must be taken in the Master's Geography Program). Failing the examination twice results in dismissal from the degree program and the Graduate School.

The comprehensive examination for students in thesis option is replaced by the thesis and final oral defense.

Plan I – Thesis Process Requirements

1) Thesis committee

The student must consult with the academic advisor to form the thesis committee. All members of the thesis committee must hold Graduate Faculty status at The University of Alabama. Normally, a student's thesis committee comprises his/her advisor as chair and two additional faculty members, and one of them must come from outside the department. Generally, the thesis committee's role is to offer subject matter suggestions and to assist in advising the student. The thesis committee should be established by the end of the second semester in residence.

2) Thesis Proposal

The thesis research proposal (typically 10–15 pages) should include a well-referenced introduction to the research topic, well-defined problem statement, relevant literature, hypotheses if applicable, brief description of methods to be used, and timeline. The student should submit the research proposal to the thesis committee for review two weeks prior to the thesis proposal defense date. By the end of the second semester, the student must publicly defend the thesis proposal. The student must publicly present the thesis proposal and then defend it in a meeting with the thesis committee. A successful pass is indicated by the majority vote of the thesis committee to approve. A student who fails to pass the thesis proposal defense is permitted one additional attempt. The student who fails on the second attempt will be expelled from the program. The second proposal defense should be attempted before the end of the second semester in the program.

3) Thesis Style and requirement

Upon acceptance of the research proposal by the thesis committee, the student should work closely with the academic advisor to complete the thesis in a timely manner. The thesis is a coherent scholarly work, usually having 40-80 pages. However, the appropriate length will be determined by the student in consultation with the advisor and thesis committee. The traditional thesis typically includes chapters of Introduction (research problem), Review of Literature, Research Methods, Research Results, Discussion, and Conclusions.

The University does not permit an "article-style" thesis to be presented for a master's degree. But, a "journal-format thesis" is acceptable. Such a thesis follows the format of a particular journal in which the student and advisor want the thesis to be published. To prepare a journal-format thesis, the student uses the journal's "information for authors" or similarly titled guidelines in conjunction with the Graduate School's Student Guide to Preparing Electronic Theses and Dissertations.

4) Thesis defense

When the thesis has been completed, the student must publicly defend the thesis. A draft of the thesis should be provided to all members of the thesis committee at least two weeks prior to the date of the defense. Once the thesis committee has agreed that the student is prepared for the final oral defense, the student and committee members will set the defense date. Notice of the thesis 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. All members of the thesis committee are expected to attend and participate in real time. Virtual attendance via interactive video or teleconference is permitted for off-campus external committee members, but the student and Tuscaloosa campus faculty should attend in person unless extraordinary circumstances dictate the need for virtual attendance. In circumstances where virtual participation is necessary, real-time and fully interactive audio and visual communication capability must be included, and all participants must follow the Virtual Participation guidelines of the Graduate School.

A successful pass of the defense is indicated by a majority vote of the thesis committee to approve the written thesis and defense. The defense result must be reported through the Committee Acceptance Form (CAF) signed by all committee members, department chairperson, and graduate dean. The CAF must be submitted through the UA DocuSign system in myBama to the Office of the Graduate School.

Plan II – Non-Thesis Process Requirements

1) Qualifying Examination Committee

Each student in the Non-Thesis option is required to take the Master's Qualifying Examination. The student must consult with their chosen academic advisor to form the qualifying examination committee. The committee will consist of three departmental faculty members with full graduate faculty status. Normally, the student's advisor serves as chair and two other committee members are the faculty members whose courses the student has been enrolled.

2) Qualifying Examination

The Qualifying Examination is an oral exam designed to assess the student's breadth and analytical ability in the discipline of geography. The examination will not be given before the student has successfully completed a minimum of 18 credit hours (of which 15 credit hours must be taken in the Master's Geography Program). A majority vote by the three-person examination committee will determine the outcome of the examination. Failing the examination twice results in dismissal from the program.

3) Non-thesis Research Paper

A student in the non-thesis option is required to submit a research paper that expands on a course-related research project for fulfillment of the Master's degree. Normally, non-thesis research papers are between 15–20 typewritten pages in length and demonstrate the student's written and analytical skills. The paper must be read and approved by the advisor and the Qualifying Examination Committee.

Time Limits for Degree Completion Requirements

Typically, students are expected to complete all requirements for the Master's degree within two years following admission to the Master's program. The maximum time limit for the Master's degree is six years, as indicated by the graduate school's information about time limits for degree completion:

Graduate School information on Time Limits.

Student Progress Requirement

Students need to submit an annual progress report at the end of the Fall semester. The annual report covers the students' progress in coursework, comprehensive exams (for non-thesis students), thesis or

non-thesis research progress, publications, and other research activities (fieldwork, conferences). The annual report should be reviewed by the student's advisor and the Graduate Program Committee. A student can be dismissed for lack of satisfactory progress, or department funding may be terminated.

Academic Misconduct Information

Academic misconduct, including cheating, plagiarism, and fabrication of information, will be handled by following the Academic Misconduct Disciplinary Policy.

Graduate School information on Academic Misconduct.

Withdrawals and Leave of Absence Information

If a graduate student desires to withdraw from a course or from the university (i.e., withdraw from all courses in the semester), either for non-medical or medical reasons, the student is encouraged to consult with his or her academic advisor and the department chair. It is the student's responsibility to review the UA Academic Calendar for the specific date by which one may drop a course. Under compelling circumstances beyond the student's control, a graduate student may request that the department petition the Graduate School with the rationale for granting a leave of absence. 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.

Graduate School information on Withdrawals and Leave of Absence.

Academic Grievances Information

Information about Academic Grievances.

Grades and Academic Standing

All graduate students must earn and maintain an overall graduate grade point average (GPA) of 3.0 or better for all graduate courses undertaken at The University of Alabama. Students who have received an academic warning with a GPA below 3.0 may not hold graduate assistantships.

Information about Grades and Academic Standing.

Graduate School Deadlines Information

It is the student's responsibility to regularly check Graduate School deadlines.

Application for Graduation Information

Each candidate for a master's degree must submit an Application for Degree via myBama.

Additional information about the application for graduation.

Acquisition of Financial Support

Students in good standing in the Geography MS & PhD programs are eligible to receive financial support for their studies through a graduate research assistantship (GRA) funded through their advisor, a graduate teaching assistantship (GTA) funded by the Department, or a fellowship. Both types of assistantships provide an equivalent stipend and benefits along with paid tuition and fees. For PhD students offered funding who meet performance expectations and who do not meet any Conditions for Termination of Financial Support (see below), financial support is renewable for up to four years. For MS students offered financial support who meet performance expectations and who do not meet any Conditions for Termination of Financial Support (see below), financial

support is renewable for up to two years. Master's students that transfer into the PhD program must reapply for graduate funding, as a new PhD student. Students will be informed of impending financial support termination at least one semester prior to the support termination date except in the special cases noted under Conditions for Termination of Financial Support. Students in good standing may petition the Department Chair for continuing GTA support beyond the second year for MS students or fourth year for PhD students on a semesterly basis. Petitions for continuing support must be submitted to the Department Chair at least three months prior to the start of the final semester of guaranteed support. Students in good standing with GRA support beyond the second year for MS students or fourth year for PhD students may continue at their advisor's discretion until GRA support is either exhausted or terminated by their advisor.

Fellowship Nominations

Eligible students who excel in the program may be nominated by the Department for UA fellowships. Nominees are selected by the department's Graduate Committee. Fellowship recipients are guaranteed paid tuition and fees, a stipend, and benefits at least commensurate with those provided through GRA or GTA support.

Performance Expectations for Continuing Financial Support

- The student must be in good academic standing in the Geography MS or PhD program.
- The student must remain clear of all infractions outlined under Conditions for Termination of Financial Support
- The student must complete all mandatory annual training and abide by all rules and policies held by The University of Alabama, The UA College of Arts and Sciences, UA Environmental Health and Safety, and the Department of Geography and the Environment.
- Graduate teaching assistants must satisfactorily perform all duties assigned to them in a timely manner as defined by the the Graduate Teaching Assistant supervisor, the instructor of record, or their designee for all courses to which the student is assigned teaching, grading, and/or laboratory preparative responsibilities.
- Beginning in the first semester, students must meet degree milestones to be considered in good standing.

Conditions for Termination of Financial Support

Students who meet one or more of the following criteria will be subject to termination of financial support pending Department of Geography and the Environment administrative review. Depending upon the severity of the infraction or the extent of non-compliance, the Department Chair and Graduate Director—with input from the Graduate Committee—will recommend immediate termination of financial support, termination of financial support at the end of the current semester, or termination of financial support (partial or full) at the end of the following semester.

- *Dereliction of duty.* Dereliction of duty includes but is not limited to: failure to comply with all UA safety and interpersonal conduct policies; absence from scheduled obligations without prior notification to the instructor of record or designee (for teaching assistants) or the research advisor (for research assistants); or failure to satisfactorily complete all activities associated with the funded position as defined by the instructor of record or designee

(for teaching assistants) or by the research advisor (for research assistants) and the student's departmental memorandum of appointment.

- *Resolved finding of Academic Misconduct.* Penalties, including potential loss of financial support, will be determined with guidance from the UA Graduate School and/or the UA College of Arts and Sciences.
- *Failure to have a department-approved research advisor for more than one semester.* Students without an approved research advisor may not enroll in GY 599 or GY 699 courses and, therefore, cannot proceed toward degree completion. Students without an advisor may be relegated to the non-thesis Master's Program, at the discretion of the Graduate Director and Department Chair.
- *Loss of good academic standing.* Students not in good academic standing have one probationary academic semester after notification of their change in academic status to return to good academic standing—with the non-passing grade exception noted below. Financial support will be terminated if good academic standing is not restored by the end of the probationary academic semester. Students who earn more than two grades of 'C' or at least one grade of 'D' or 'F' in graduate courses will have a compulsory academic performance review by the Graduate Committee. This review will determine whether the student should continue to receive financial support and/or be dismissed from the program at the end of the semester in which the non-passing grade is earned or at the end of the following semester. A decision will be rendered prior to the end of the semester in which a third 'C' and/or a 'D' or 'F' grade is reported.
- *Delinquent Annual Review.* Students who neglect to complete the required annual review in any year of their studies are no longer in good academic standing.
- *Insufficient continuous research progress.* The thesis or dissertation adviser determines if a student is making adequate research progress commensurate with their time in the program during required annual reviews. If it is determined that the student is not making adequate research progress, the student will be granted one probationary semester (i.e., academic semester or full summer term) with financial support to remedy productivity deficiencies, as assessed by the thesis or dissertation adviser. Failure to meet minimum research expectations by the end of the probationary semester will result in immediate termination of financial support and/or may prompt an MS or PhD student being relegated to the non-thesis Master's Program, at the discretion of the Graduate Director and Department Chair.