

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.

Admissions

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 concentration: 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.

A graduate student admitted with additional requirement "Permission-to-continue" must maintain a GPA of 3.3 or better in the first semester of enrollment, in which at least 9 semester hours of graduate coursework are completed. A student must earn a GPA of 3.0 or better over the first 12 hours of graduate coursework. The evaluation is based on all graduate level coursework completed at the end of that semester. Failure to satisfy either condition will result in the student's dismissal from the master's program. A student who satisfies the latter condition will automatically assume the status of a regularly admitted graduate student.

Non-degree student status permits a student to enroll in a maximum of 12 hours of graduate coursework. Upon the successful completion of a maximum of 12 graduate course credit hours, if the student wishes to continue graduate level coursework, the re-application as a degree-seeking student is required to be filed to the Graduate School and reviewed by the department graduate committee. Non-degree seeking students cannot take GY 500 or GY 523.

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 6 credit hours of required courses and 6 credit hours for thesis research. A minimum of 12 credit hours must be taken from courses in one of the four areas of concentration. The remaining 6 credit hours may consist of courses from any of the other areas of concentration and/or the related courses offered in other departments with Advisor approval.

The non-thesis option is only available with the approval of the graduate program director. Students on the non-thesis option track are not generally eligible for department funding and do not hold department assistantships. This option requires a total of 39 credit hours, including 6 credit hours of program required courses (GY 500 and GY 523) and 3 credit hours for non-thesis research projects (GY 598). Students selecting this option must take a minimum of 8 credit hours of geographic techniques, and may count up to 15 credit hours of such coursework towards their MS program. A minimum of 15 credit hours must be taken from courses in one of the areas of concentration. The remaining 10 credit hours may consist of courses from any of the other three areas of concentration, or related courses in other disciplines with the advisor and graduate program director's approval (up to 6 of the 10 credit hours); and/or experiential courses (up to 3 of the 10 credit hours).

If a thesis-track student wishes to change to the non-thesis track, a written justification must be provided by the student. This change must be approved by the student's advisor and the Graduate Program Director. Any student who makes this change will be ineligible for department funding and will not qualify for assistantships. GY599 - Thesis Research, cannot count toward a non-thesis track Master's degree.

MS in Geography, Thesis Option

This option requires a total of 30 credit hours including 6 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. Additional information is provided in the Department of Geography and the Environment *MS Graduate Handbook*.

Code and Title	Hours
Required Courses	
GY 500 Research Traditions Meth In GY	3
GY 523 Quantitative Methods	3
Area of Focus ¹	12
Electives	6
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 Studies Geog	
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 39 credit hours including 6 hours of program requirements and 3 hours for non-thesis research projects. Students selecting this option must take a minimum of 8 hours of geographic techniques and may count up to 15 credit hours of such coursework towards their MS program. A minimum of 18 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 credit hours may consist of courses from any of the other three areas of focus; related courses in other disciplines with departmental approval (up to 6 of the 10 credit hours); and/or experiential learning courses (up to 3 of the 10 credit hours). The non-thesis option is only available with the consent of the academic advisor and graduate program director.

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
Area of Focus ¹	18
Geography Elective	6
Can include but not limited to:	
GY 532 Spec Research In Geog	
GY 570 Special Studies Geog	
GY 590 Internship	
Non-Geography Electives or Experiential Learning Courses	6
Regardless of concentration students must have 8 hours from the GIS area of focus.	
Total Hours	39

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 Ecosystem Management: Silviculture	
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

The department offers the Accelerated Master's Program (AMP), which is intended for gifted and highly motivated undergraduate students in geography and environmental science at The University of Alabama who would like to pursue a Master's degree. Typically, qualified students may apply to the Graduate School in the final semester of their junior year. At the time of application, they must have overall undergraduate GPAs of not less than 3.5. AMP students must already be working in the research lab of their proposed graduate advisor at the time of the application. Once admitted, an AMP student is approved to take up to 12 hours of graduate courses that will count towards both the bachelor's and graduate degrees.

Graduate School information on the Accelerated Master's Program.

Comprehensive Exam/Capstone

For students completing the non-thesis option, a Comprehensive 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 exams typically last 1.5 hours and cover topics from 100-level geography courses, GY 500 and GY 523, and materials in the student's concentration area within geography. Normally, this exam is administered during the beginning of the student's third semester of residence. However, 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 the 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 and/or whose research areas matches the student's interest.

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 exams typically last 1.5 hours and cover topics from 100-level geography courses, GY 500 and GY 523, and material in the student's concentration area within geography. Normally, this exam is administered during the beginning of the student's third semester of residence. However, 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

Following the successful completion of the Master's Qualifying Examination, a student in the non-thesis option is required to submit two course-related research papers 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 papers must be read and approved by the advisor and an additional member of the geography faculty with full graduate faculty status. The second reader must be selected by the student in consultation with the advisor and must be approved by the advisor. The same faculty member cannot serve as the second reader for both non-thesis research papers. Normally, the readers are the same faculty members that comprised the Master's 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 Spring 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.

Scholastic Requirements

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 Scholastic Requirements.

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.