



*A Guidebook  
to the  
Graduate  
Program*

**University of Missouri  
Department of  
Geography**

**2018-2019**

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The University of Missouri Department of Geography offers a Masters (M.A.) degree that prepares students for a variety of professions, including careers in academics, research, public service, and the private sector. This *Guidebook* is meant to help students map their route from serious consideration of entering the program to graduation with an MA degree in hand.

The *Guidebook* is the first “required reading” of the Geography MA program, and a thorough familiarity with its contents will make progress toward the degree more straightforward. It outlines the information that each graduate student will need to successfully develop their own program of study and accomplish their goals for the degree. This booklet is intended to help students orient themselves, but it should be complemented by frequent interaction with their advisor, the Director of Graduate Studies, and visits to the Department’s website: <https://geography.missouri.edu/grad/graduate-studies>, where further updated details are available, along with access to necessary forms and links to important resources. We are glad that you are a part of the program, and hope that through interaction, good courses, creative research and writing, and the support of our academic community, you will find your MU Geography experience to be rewarding and productive.

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## 1. Overview of degree requirements

To earn an M.A. in Geography, a student must:

- Complete 32 hours of graduate coursework with average grades of B or better.
- Complete a minimum of 22 hours of graduate credit in courses offered by the Department of Geography numbered 7000 or higher.
- Complete Geography 8750 and 8760.
- Complete 9 hours of coursework at the 8000-level (or above) in addition to Geography 8750 and 8760.
- Complete 6 hours of seminar-structured coursework, in addition to Geography 8760. Geography classes numbered 8710, 7720, 8120, 8270, and 8840 are all applicable to the fulfillment of this requirement, as are seminar-structured courses taken in other departments. Any seminar coursework taken outside of the Geography department should complement the student's chosen course plan, and should be carefully selected in consultation with his or her graduate advisor.
- Complete 6 hours of coursework in geographic methods in the mapping sciences, statistics, or qualitative methods. This requirement can be satisfied by Geography 7710, 7830, 7840, 7860, 7940 and 8820; all 7000 level statistics courses; or Educational and Counseling Psychology 7610. Additional courses may qualify with permission from the Director of Graduate Studies.
- Be enrolled in a minimum of nine (9) hours of coursework or readings per semester to maintain full-time graduate student status, or obtain permission from both the graduate advisor and the Director of Graduate Studies to enroll as a part-time student.
- Limit hours in Geog 8080, 8085 and 8090 listed on the M-1 form to a maximum of twelve (12). Non-thesis students may apply a maximum of six (6) credit hours in Geog 8080 to their degree requirements; thesis students must take a minimum of six (6) Geog 8090 research hours, with not more than nine (9) hours applied to degree requirements.
- Meet with his or her graduate advisor at least once each semester to chart the progress toward graduation and to discuss any changes in graduation plans.
- Complete either a Master's thesis or a substantial research project in lieu of a thesis to be discussed and defended during the Master's exam.
- Satisfy all the requirements of the MU Office of Research & Graduate Studies pertaining to completion of an M.A. as published in the Office of Research & Graduate Studies Catalog current at the time of admission to the Office of Research & Graduate Studies (<http://gradstudies.missouri.edu/academics/graduation-requirements/masters-grad-requirements.php>).
- Deliver an acceptable 20-40 minute oral presentation on the thesis or research project findings at a professional meeting or in the Geography department's colloquium series.

The *Graduate Student Progress Sheet*, available on the Geography Grad website (<https://geography.missouri.edu/grad/graduate-studies>) is an excellent resource to help map out the specifics of your program to fit these requirements. See also the Idealized calendar in Section 11 of this *Guidebook*. Full Office of Research & Graduate Studies requirements for degree completion may be found in the *University of Missouri Graduate*

Catalog (<http://gradstudies.missouri.edu/academics/graduation-requirements/masters-grad-requirements.php>).

## 2. Selection of a graduate advisor

The role of the Advisor at MU involves both assisting in coursework selection and in developing a research project. Consultation about coursework choices, program plan progress, and professional endeavors (including the establishment of professional relationships both within the university and elsewhere) should begin early in the first semester. Each student must, in consultation with their advisor, complete a formal Program of Study report (the M-1 form) by the end of the second semester, and file it with the Office of Research & Graduate Studies. It is this form that will guide discussions of degree progress when a graduate student meets with their advisor. The Advisor is also involved in assessing their advisees' progress during the annual spring semester review.

The advisor is also a central link in the student's establishment of a research program, assisting in the decision to pursue the thesis or research paper option, contributing to selection of a committee, and serving as mentor, editor, constructive critic and advocate.

As part of the review process for any application to the MA program, it is necessary that at least one faculty member volunteer to serve as the candidate's Preliminary Graduate Advisor. This faculty member is interested in acting as the applicant's advocate for admission, and generally has some research interests in common with the applicant. If no faculty member is willing to act as a particular applicant's Preliminary Graduate Advisor, that applicant is not accepted into the MA program, regardless of the applicant's transcript, test scores, or experience.

Through the course of a graduate student's program, it is possible that his or her areas of interest in geography may change, and it is then sometimes appropriate for the student to seek a different advisor. In order to switch advisors, it is necessary that the student meet with the intended new advisor to ensure that that faculty member is willing to accept another graduate advisee, as well as with the student's Preliminary Graduate Advisor and the Director of Graduate Studies.

Faculty will not normally be available for work with students between May 15 and August 15, as this is their primary opportunity to further their own research. Students should carefully plan their own schedules, thesis submissions, and defense dates with this in mind.

## 3. Graduate Student-Faculty interaction

The equation of graduate student- faculty interaction should be simple, and one of the most rewarding components of the graduate program, but it is surprising how complex and worrisome it can sometimes become. A fundamental fact to note is this: *faculty members assume that if a graduate student has a question or needs advice, the student will initiate a conversation.* Students are welcome to knock on a door, come to an office hour, or otherwise initiate a discussion with the appropriate faculty or staff member. It

is the responsibility of the graduate students to speak up, come forward, and let personal or group needs be known.

In addition to individual interaction, it is possible for the concerns or needs of one or multiple graduate students to be addressed through the graduate student representative elected to attend faculty meetings. All faculty meetings are open to graduate students except when personnel matters are being discussed. The bottom line on the equation of graduate student-faculty interaction is that each student must be willing to speak out about personal or group needs. The faculty can promise a thoughtful response and concerted effort to accommodate your needs as best we can. We welcome and appreciate your input.

#### 4. The first two semesters

Most students begin their MA program in the fall, and thus many important elements of the graduate program are planned for the fall semester. The first semester experience is geared toward introducing new students to professional geography, to the Department's faculty, and to one another.

- **Course Selection**

Full-time students register for 9 credit hours per semester, which typically consists of three three-credit courses. First semester graduate students are expected to enroll in 8760 (Geographic Thought), along with two other classes. Second semester graduate students are expected to enroll in Geography 8750 (Research Design), along with two other classes. All courses numbered 7000 and above in Geography or other departments are available for graduate credit.

A diverse set of Geography courses is available to MA students, ranging from exploration of the sub-fields of the discipline to analytical techniques and specialized seminars. Consideration of the wealth of courses in related and supportive fields is also wise: many students enroll in ancillary coursework in areas such as language, computer science, history, natural resources, or other allied fields.

- **Geography 8750 and 8760**

Geography 8750 and 8760 are seminars on Research Design (8750) and Geographic Thought (8760) that are intended to help new graduate students get a better sense of what has brought them here, and where they wish to go within geography. These courses are also intended to help each student define their research interests, and initiate a research proposal that might serve as the foundation of a thesis. Through these two classes, each student interacts with the professional literature of the discipline, participates in seminar discussions, writes papers and proposals, and delivers formal oral presentations. Typically, each Geography faculty member is given some time to talk about his or her own education and research interests in these courses. These presentations give new graduate students the opportunity to meet and observe faculty members with whom they may not previously have interacted. It helps each student to see what the individual faculty members are like, to learn what courses they teach, and -

- most importantly--to get a sense of which faculty members they would like to work with as part of a productive and satisfying M.A. program.

- **Planning a Program**

The M.A. program is designed to allow a full-time student to graduate after four semesters of coursework and research hours. Through consultation with their graduate advisor and other students, it is desirable for each student to plot out--in at least an approximate sense--their entire of progression through the M.A. program early on. During the first semester, it is thus wise and necessary to take the time and invest the energy in generating such an approximation. This plan should be formalized on the Program of Study (M1) form by the end of the semester (available from the Geography Grad website - <https://geography.missouri.edu/grad/graduate-studies>). This schedule can be changed, but it can also serve as a guideline for class decisions, field work, part-time work, etc., as the rest of the student's program takes shape. By the end of the second semester, decisions about research plans and graduate committee membership should be settled, and formally recorded on either the M2 (thesis committee) or G2 (research project committee) forms.

- **Note about Assistantships**

Most Teaching and Research Assistantships are half-time appointments, and constitute a 20 hour per week time commitment. These responsibilities, in conjunction with 9 hours of coursework, constitute at least a full-time job. RAs and TAs are generally encouraged to not hold outside employment while holding a half-time TA or RA appointment. Exceptions to this guideline should be discussed with the student's advisor and Director of Graduate Studies. Further details about assistantships are available in Section 7 of this *Guidebook*.

## 5.Seminars

Seminars are recognized as a critical element in the Graduate Program and the formation of postgraduate students. They form the critical transition between coursework and research and allow students the opportunity to grow as independent thinkers, researchers, and project managers. This intellectual and organizational independence is seen as a primary goal of the Masters degree in Geography at MU.

All MA students must take at least 6 hours of seminar credit. Typically, these courses are designated by the course number 8710, although other courses may qualify. Students may also satisfy the seminar requirement with courses outside the department. In these cases, the student is responsible for gaining approval from both the advisor and the Director of Graduate Studies.

Seminars may be formatted as discussion-based or research-based and are to be distinguished from both lecture-based courses that are more systematic or topical and methods courses that are oriented towards learning specific geographic tools or research techniques.

- **Discussion-based:**

Discussion-based seminars are predicated on developing scholarship, critical analysis skills, and a deeper understanding of complex ideas, concepts or theories (as compared to conducting research investigations). Such seminars are important in that they provide a unique outlet for students to explore questions in specific geographical contexts provided by the framework of the class.

The organization of discussion-based seminars is primarily structured around directed readings, in-class discussions and student-directed analysis. The results of such an analysis are normally expected to be communicated in some format such as a paper, presentation or report.

- **Research-based:**

Research-based seminars are predicated on developing organizational skills, understanding how to develop a research design, and putting these skills into practice through the completion of individual or group projects throughout the course of a semester.

There is no inherent expectation or assumption that the result of the investigation be related to pre-existing or nascent thesis projects. Rather, the primary goal is to increase the level of “research maturity” of the student, increase their capacity to direct investigations in a supportive, communal environment.

Regardless of whether the seminar course is taught as either discussion-based or research-based, the repetition of the tasks associated with conducting research or developing ideas in multiple seminar experiences and the feedback provided throughout the semester allow for the progressive development of skill, confidence, and independence critical for the development of the graduate student and their ability to successfully complete a thesis project. This type of hands-on seminar provides an outlet for students to explore complex ideas and simple, discrete, research tasks and learn from experience.

## 6. Conducting a research project: thesis and research paper options

Learning the process of conducting disciplinary research and then carrying out a research project is the defining experience of a graduate program. The Department of Geography offers two options to satisfy the requirement for completing a research project: a thesis or a publishable-quality research paper. The first year courses are designed to help begin the process of designing and implementing a research project, which is then conducted in consultation with a faculty advisor and committee. Specific program requirements differ for each option:

**A) Geography M.A. with thesis.** In addition to the minimum of 24 hours of course work - including core courses specified by the Department, at least six semester hours of

thesis credit (Geography 8090) are required, and an oral exam conducted by the candidate's faculty committee (to include at least one faculty member from outside the Department of Geography). In all, course work and research credits must total at least 32 semester hours.

**B) Geography M.A. non-thesis.** A minimum of 26 hours of course work are required (including core courses specified by the Department), plus no more than 6 semester hours of independent readings or research credit (Geography 8080) leading to the completion of a publishable-quality research paper, and an oral exam conducted by the candidate's faculty committee. In all, course work and research credits must total at least 32 semester hours.

## A. Thesis Requirements

- **Proposal**

The student should work closely with their advisor and committee to develop a thesis proposal by the end of the second semester. This proposal carefully specifies the intent of the research, and details how it will be accomplished. A well-crafted proposal explains the significance of the planned research, situates it within the context of the geographic literature, and provides a roadmap for successfully carrying out the work. It enables the student and committee to develop a consensus about what will constitute a successful thesis, and often helps identify and prevent potential problems. Work toward identifying research plans and developing a proposal is normally integrated with the content of Geography 8750 and 8760, during the first year of the program.

- **Committee**

In consultation with the Advisor, the student should choose a Thesis Committee composed of three faculty members (two from Geography and one from another department). The "Request for Thesis Committee" form (M-2) should be completed before the end of the second semester to document the committee membership with the Office of Research & Graduate Studies.

- **Proposal meeting**

First year students are expected to assemble their graduate committee for a meeting before the end of their second semester. The primary purpose of this meeting will be to discuss the student's research plans and determine whether or not the student is ready to proceed with these plans. Prior to the meeting, the student must prepare a research proposal for their advisor, which when approved, will then be distributed to the other members of the committee (elements of a quality proposal are described below). The student distributes the revised research proposal to all committee members two weeks prior to convening the committee. This meeting should normally take place in the winter semester (i.e., the student's second semester), and can only be deferred under unusual circumstances.



- **Contents of a Proposal**

The written proposal should contain the following elements:

- An introductory statement identifying the purpose of the thesis.
- A preliminary review of the literature with accompanying bibliography of sufficient length to illustrate that the student has begun a serious literature search.
- A clearly stated research question.
- A statement concerning the methodology of the research, including: steps in the research procedure, techniques of analysis to be used, a timetable outlining tentative deadlines for every step in the procedure, and assessment of information (validity, reliability, accessibility, and availability).
- A statement of the expected contributions that the research will make.

A good research proposal allows for better faculty/student interaction and provides a good foundation for several thesis chapters.

- **Geography 8090**

After the committee has approved the proposal, a student may register for thesis research credit hours (Geography 8090). The student will agree upon a formal plan of work with their advisor, which must be documented on an Independent Study Contract to enable the student to register for these credits.

- **Institutional Review Board**

Federal guidelines require that any research project involving human subjects be reviewed and approved by MU's Campus Institutional Review Board (C-IRB). This means that each student whose research involves living human subjects in any way (interviews, participant observation, surveys, exercises, etc.) or involves the use of primary data on human subjects collected by another individual requires IRB approval prior to starting the research. Each student must complete on-line IRB training and, once certified, submit an application for approval of his or her human subject research activities; both processes are paperless and are available on-line at <http://research.missouri.edu/cirb/index.htm>. Students will receive an introduction to the IRB in Research Methods (GEOG 8050), and they should consult their advisors should they have questions or concerns about the process. It is, however, the student's responsibility to complete the IRB training, submit the application, and wait for approval before beginning research. Failure to comply with these regulations will result in a Compliance Breach, a hearing before the University's C-IRB Board, and quite possibly the termination of the research project and destruction of all data collected in non-compliance.

- **Acceptable Thesis**

The Department has adopted the following guidelines for an acceptable thesis:

- The thesis is a contribution to knowledge in the discipline, and presents original material

- The method employed - whether scientific, experimental, experiential, or historical - is appropriate and properly executed.
- The thesis may take various forms. Traditionally, the thesis consists principally of prose, with accompanying maps, figures, and tables. However, students should be aware of the freedom to use forms other than prose for presentation and analysis of their research results. Each student should discuss these possibilities with their advisor.
- Mechanics are correct and all components specified by the *Office of Research & Graduate Studies Guidelines for Thesis Preparation* are present. These include: complete abstract and table of contents; the document should be free of typographical and grammatical errors; all charts, tables, and maps are in proper form; bibliography is adequate and in proper form; and written and graphic presentations are effective.
- The style of bibliographic references should follow that found in the *Annals of the Association of American Geographers*.

### • **Thesis Exam**

Upon completion of the thesis research, and when the student's advisor is satisfied with the quality and substance of the draft manuscript, the student will schedule an oral examination (thesis defense) with the committee members, and notify the department's Administrative Assistant of the scheduled date (usually during the student's fourth semester). Each member of the committee must have a final defense copy of the thesis at least two full weeks before the examination. A copy of the thesis must also be put in the departmental library one week prior to the oral exam. The student is responsible for meeting all other thesis-related deadlines established by the Office of Research & Graduate Studies.

The thesis exam is typically a two-hour session that is primarily focused upon the defense of the thesis. The first segment is a 20-30 minute presentation that is open to the public and summarizes the content and primary findings of the thesis. The second segment is a closed session during which the committee questions the student about the content of the thesis. This exam serves as a forum for the student to define and defend his or her research and writing.

Upon completion of the exam questioning, the student is asked to leave the room, and each of the three faculty members votes on the result of the exam: Pass, Conditional Pass, or Fail. An official "Result of Oral Exam" form (M-3) is completed and submitted to the Office of Research & Graduate Studies.

The thesis exam is an opportunity for the committee to make final requests for changes in the thesis. While revisions will have taken place during the iterative process of writing, reviewing and rewriting, there are normally some final adjustments that come from the thesis defense. These must be completed and approved by the committee prior to submission of the final thesis to the Office of Research & Graduate Studies.

### • **Thesis Copies and Public Abstract**

The Department of Geography requires an electronic copy of the thesis for its digital archive and it is customary for the graduate to provide a copy for each of the faculty members who has worked on this project. In addition, an electronic copy of the thesis and accompanying documents must be submitted to the Office of Research & Graduate

Studies (see <http://gradstudies.missouri.edu/academics/thesis-dissertation/diss-thesis-guideline/electronic-basics.php> for details).

In keeping with the land grant mission of the University of Missouri-Columbia to provide education, research and service to the people of the state and the nation, each graduate who submits a thesis as a requirement of his or her degree program must include a public abstract.

## **B. Research Paper Requirements**

The MU Office of Research & Graduate Studies requires that all students who choose not to write a Master's thesis must produce a substantial original research project in lieu of a thesis. In Geography, this is defined as a publishable-quality paper initiated during previous course work or from a new project resulting from independent research hours (Geography 8080).

### **• Course work**

In addition to the basic requirements defined by the Department for all graduate students, the following coursework stipulations apply to Non-thesis degree candidates:

- A maximum of six (6) hours in Geography 8080 may be applied to the required 32 credit hours of graduate coursework.
- Non-thesis candidates are ineligible to receive credit for Geography 8090. If a student initially decides to pursue a thesis, and later changes to the non-thesis option, a maximum of three (3) credit hours of Geography 8090 can be converted to Geography 8080 through petition to the Office of Research & Graduate Studies. This "conversion" is only possible if the student can demonstrate to their advisor that an acceptable Master's research paper project resulted from the thesis research credits. These three (3) hours of "converted" 8080 credit will count toward the required 32 hours of graduate coursework.
- Six (6) hours of credit from courses numbered 7000 or above from departments outside of Geography in support of a defined area of specialization is recommended. A maximum of 10 semester hours from outside the Department may count toward the MA degree.

### **• Committee and Proposal**

In consultation with the Advisor, the student should choose a Research/Exam Committee composed of three faculty members (all are to be members of the Geography Department). The "Request for Thesis Committee" form (M-2) is not required by the Office of Research & Graduate Studies for non-thesis students, but the committee membership should be documented in the student's departmental file by the end of the second semester of the student's program using form G-2. Students pursuing this option are expected to present a research proposal comparable to that outlined for the thesis option (see p. 6). Students must also comply with IRB regulations (see p. 7).

### **• Acceptable research paper**

The principle purpose of the non-thesis option is to provide the student with the training and skills required to become a practicing professional geographer in a non-academic setting. To this end, the student is required to complete one major research paper. The guidelines for this paper are as follows:

- The paper may begin as a seminar paper or class experience but it is expected to be a professional work, suitable for publication in an academic journal
- The product should demonstrate both advanced learning experiences and the student's professional abilities.
- This project is likely to be an application of geographic methodology and techniques.
- The paper must be mechanically correct and complete. It will contain an abstract, be free of typographical and grammatical errors; all charts, tables, and maps will be in proper form; the bibliography will be adequate and in proper form; the written and graphic presentations must be effective. The style of bibliographic references should follow that found in the *Annals of the Association of American Geographers*.
- The paper must be developed with the advisor and be certified by two additional faculty members as meeting non-thesis paper requirements.

- **Oral Exam**

In the final semester of the student's M.A. program, the student will take a two-part oral exam. Upon completion of the research project, and when the student's advisor is satisfied with the quality and substance of the draft manuscript, the student will schedule an oral examination and notify the department's Administrative Assistant of the scheduled date. Each member of the committee must have a final copy of the research paper at least two full weeks before the examination. A copy of the paper must also be put in the departmental library one week prior to the oral exam. The student is responsible for meeting all other related deadlines established by the Office of Research & Graduate Studies.

The non-thesis oral exam consists of two parts: first, a comprehensive examination on the discipline of Geography including journals, authors, and issues in the field; and second, a presentation and defense of the research paper. The candidate must pass both the comprehensive exam and defense of research paper to receive the MA degree. The comprehensive exam is a two-hour session focused primarily upon the graduate courses undertaken during the student's M. A. program (including those outside of Geography) and general concepts and issues in geography. Each committee member will ask the candidate questions in two subject areas and will individually assess the candidate's level of understanding and explanation based on the response. To receive a decision of Pass, the candidate must provide an acceptable response to a minimum of four of the six total question areas. Upon completion of the questioning, the student is asked to leave the room, and the three faculty members compare their individual assessments and vote on the result of the exam: Pass or Fail. Students who fail the comprehensive exam may retake the exam upon approval of the advisor.

Typically, the presentation and defense of the research paper is scheduled only after the candidate has passed the comprehensive exam. The first segment is a 20-30 minute presentation that is open to the public and summarizes the content and

primary findings of the research paper. The second segment is a closed session in which the committee questions the student about the content and construction of the paper and the research it reports. Upon completion of the questioning, the student is asked to leave the room, and the three faculty members vote on the result of the exam: Pass, Conditional Pass, or Fail. Students who fail the defense of the research paper may *not* reschedule the defense.

The defense of the research paper is an opportunity for the committee to make final requests for changes in the research paper. A vote “conditional pass” means that the research paper requires revisions in order to be approved. While revisions will have taken place during the iterative process of writing, reviewing and rewriting, there are normally some final adjustments that come from the exam. These must be completed and approved by the committee prior to submission of the final copy to the Department.

- **Research paper copies**

One electronic copy of the final draft must be submitted to the Geography department for its library. It is also customary for the graduate to provide a copy for each of the faculty members who has worked on this project. The Office of Research & Graduate Studies does not require a copy of this research paper.

## 7. Annual review

The University Office of Research & Graduate Studies requires that each graduate student provide an annual report of progress on the Graduate Student Progress System (<http://gsps.missouri.edu>). As such, each spring all graduate students in the Department of Geography must report their activities and accomplishments of the prior year. This information is used by the faculty to help monitor the progress of each student toward their degree, provide feedback, and make decisions on second-year assistantships. An on-line link to the GSPS is found on the Geography Grad website.

## 8. Financial support

A variety of opportunities for financial support are available from the Department of Geography, as listed below. Additional resources and support programs are available through the MU Office of Research & Graduate Studies.

- **Teaching Assistantships**

The Department typically has six or seven Teaching Assistantships available to full-time first and second year MA students. TA positions are half-time responsibilities (20 hours per week) that are usually geared toward teaching laboratory sections of courses such as Geography 1 and 2 (Regions and Nations of the World), GIS I, and Computer Cartography. Assistantships carry a nine-month stipend, course fee waiver, and

eligibility for student health insurance subsidy. Summer funding is occasionally available for qualified TAs, although faculty have first priority in teaching summer classes so this should not be counted on for supplemental income. Assistantships may be renewed for a second year upon demonstration of satisfactory performance during the first year and significant progress toward degree completion. Renewal applications are due by January 15 of the student's first academic year in residence. Assistantships may be renewed only once.

- **Research Assistantships**

Several Research Assistantships are awarded each year for full-time graduate students to work on research projects or work associated with the Geographic Resources Center or faculty grants. Often these involve skills in remote sensing and/or GIS. Applications for RA positions must be submitted by January 15 for assistantships available the following fall semester. Assistantships carry a nine-month stipend, course fee waiver, and eligibility for student health insurance subsidy. Assistantships may be renewed for a second year upon demonstration of satisfactory performance during the first year and significant progress toward degree completion.

- **Note about Assistantships**

Most Teaching and Research Assistantships are considered half-time appointments, and constitute a 20 hour per week time commitment. These responsibilities, in conjunction with 9 hours of coursework, constitute at least a full-time job. RAs and TAs are generally encouraged to not hold outside employment while holding a half-time TA or RA appointment. Exceptions to this guideline should be discussed with the student's advisor and Director of Graduate Studies.

- **Fee Waivers**

A student may qualify for a waiver of course fees through the Graduate Student Support Program (GSSP) when the following requirements are met: the student holds a Graduate Teaching/Research Assistant appointment of at least quarter time in either the Department of Geography or another degree-granting program; the assistantship held carries a qualifying job title (as defined by the Graduate Faculty Senate); and the student maintains "good academic standing." The fee waiver of any student whose grade average falls below 3.0 is revoked. In addition, termination of an assistantship at any point during the semester (including withdrawal from the university) results in loss of a pro-rated amount of the fee waiver's value. In this case, the student will be billed for the balance of the educational fees assessed for that semester.

- **Scholarships**

The Department of Geography awards a number of scholarships to qualified students each year:

- The Komen Fellowship

The Abe and Ida Komen Fellowship provides a \$1000 stipend to an outstanding Geography graduate student. The Department scholarship committee selects recipients during Winter Semester.

- **Field Research Award**

Small grants of ~\$200 are awarded annually on a competitive basis to graduate students engaged in field research. Proposals are evaluated by the Department scholarship committee during Winter Semester. These awards are made possible by funds from the Jesse Wheeler Endowment. An application form is available on the Geography Grad webpage, and is normally due on or around April 1 of each year.

- **Conference Travel Awards**

The Department strongly encourages graduate students participation in professional meetings such as the regional and national meetings of the Association of American Geographers. Financial support is available from the MU Graduate Professional Council, supplemented by the Geography Department through the Wheeler Endowment. Award amounts are usually on the order of \$150 for national/regional conferences and \$75 for in-state conferences. An application form is available on the Geography Grad website and follows the Graduate Professional Council's award cycle and deadlines. (see <https://gpc.missouri.edu/funding/travel-awards/> for details).

- **Fellowships**

A variety of supplemental fellowships are competitively available from the Office of Research & Graduate Studies each year (see the Geography Grad website for further details). These awards are provided in addition to the Assistantship stipend.

- **Graduate Student Health Insurance**

Health insurance programs are available to all graduate students, and those holding qualifying assistantships or fellowships are eligible for reduced rates. Consult the Office of Research & Graduate Studies website for further details.

## 9. Professional meetings

A vital means of developing an affiliation with the discipline of geography and for establishing professional relationships is attendance at regional and national meetings. These gatherings provide opportunities for seeing research presentations, delivering your own research, and meeting fellow emerging geographers as well as long-established ones.

The Geography Department strongly encourages participation in these meetings, and requires that each student present a paper or poster regarding their thesis/research project work at one, or at a Departmental colloquium. It is best to present when this work is completed (or nearly so), and the regional meetings of the Association of American Geographers (such as the West Lakes or Great Plains divisions) - or state meetings such as the Missouri Academy of Sciences – often provide the best forum for doing so. Attending the national meeting of Association of American Geographers (held

in the spring) is also often an extremely valuable experience, particularly for first year students, in shaping their own research ideas by seeing what other researchers are currently working on. Financial support for attendance is available from both the Department and the University's Graduate Professional Council. Working with other students and faculty in planning a group trip to a meeting often increases the enjoyment of the experience, as well as helping to reduce the expenses. See the prior section and the Geography Grad website for details about financial support for professional travel.

## 10. The MA exam

As described in further detail in Section 6, the MA exam is an opportunity for a student approaching the completion of their degree program to demonstrate their proficiency in geographic knowledge and in their ability to conduct quality research. A student should carefully discuss the nature of the exam with their advisor and committee beforehand in order to prepare appropriately. Typically, the exam begins a 20-30 minute presentation that is open to the public and summarizes the content and primary findings of the thesis or research project. The second segment is a closed session during which the committee questions the student about the content of their research, as well as any pertinent issues about coursework or disciplinary knowledge. Upon completion of the exam questioning, the student is asked to leave the room, and each of the three faculty members votes on the result of the exam: Pass, Conditional Pass, or Fail. An official "Result of Oral Exam" form (M-3) is completed and submitted to the Office of Research & Graduate Studies; students should prepare a copy of this M-3 form for signature by their committee and bring it to the exam.

A general list of terms, concepts, and people that any geographer should be familiar with has been compiled by the faculty, and is found on the following page. It provides a potential starting point for discussions that may develop during the exam. This list is far from complete, but may be consulted as a preliminary outline in preparations for the exam.

Important basic resources to consult for details are:

Derek Gregory et al. (ed.), *The Dictionary of Human Geography*. 5<sup>th</sup> Edition, 2009. Blackwell.

D.S. Thomas (ed.), *The Dictionary of Physical Geography*. 3<sup>rd</sup> Edition, 2009. Blackwell.



## Some Terms and Concepts for Geographers to Know

accessibility	ecotone	human impacts on the environment
Age of Discovery	ekumene	hydraulic civilization
alluvium	empiricism	hydrograph
anthropogeography	endemism	induction
areal differentiation	energy balance	interglacial
bankfull discharge	ENSO	island biogeography
base level	environmental determinism	karst
behavioral geography	environmental gradient	krummholz
biome	environmental hazards	landscape ecology
braided channel	environmental perception	limits to growth
break of bulk point	epistemology	Little Ice Age
built environment	ethnoburb	loess
capitalism	exceptionalism in geography	locational analysis
carrying capacity	externality	man-land (or Nature/Society) relations
cartography	feedback	megalopolis
catena	feminist geography	mental map
central place theory	floristic realm	mesophyte
chorology	Fordism (& post-)	metropolitan statistical area
climax vegetation	formal/functional region	migrant labor
colonialism (& post-)	four traditions of geography (Pattison)	migration
the commons (& the tragedy thereof)	frontier thesis	multispectral scanner
core and periphery	Gaia hypothesis	nearest neighbor analysis
cornucopian	gauging station	net primary productivity
critical theory	general circulation model	NIMBY
cultural ecology	gentrification	nomothetic/idiographic
cultural landscape	geographic scale	North-South
cycle of erosion	geographic information science (GISci)	palynology
cyclogenesis	geographic information systems (GIS)	paradigm
Darwinism	geopolitics	photogrammetry
datum	gerrymandering	podzolization
demographic transition	global climate change	political ecology
dendroecology	globalization	pool and riffle
dependency	gravity model	population pyramid
desertification	Green revolution	positivism
diffusion	growth pole	possibilism
digital elevation model	habitat fragmentation	postmodernism
distance decay	heartland/rimland	primate city
division of labor	Holocene	principal components analysis
domestication of plants & animals	human ecology	push-pull factors
drumlin	humanistic geography	r- and K-selection
dualism		qualitative analysis
economic development		

Quantitative revolution  
radiation balance  
radical geography  
rank-size rule  
regional geography  
regional science  
regression  
remote sensing  
resource management  
riparian zone  
Rostow's stages of growth  
scale  
sequent occupance

shatterbelt  
site and situation  
social construction of nature  
social justice & geography  
soil erosion  
spatial analysis  
spatial autocorrelation  
spatial mismatch of  
    employment  
spatial pattern / process  
succession  
suspended load  
swidden

systems approach  
teleology  
territory/territoriality  
the 'Geographic Eye'  
third world  
topophilia  
transnational corporation  
underdevelopment  
uneven development  
Uniformitarianism  
xerophyte

### **Some People for Geographers to Know**

Luc Anselin  
Ibn Batuta  
Brian J.L. Berry  
Paul Vidal de la Blache  
Isaiah Bowman  
Anne Buttimer  
Karl Butzer  
Richard J. Chorley  
Walter Christaller  
Saul Cohen  
Denis Cosgrove  
Henry C. Cowles  
William Morris Davis  
James Duncan  
Nick Entrikin  
Nevin M. Fenneman  
Grove Karl Gilbert  
Clarence Glacken  
Michael Goodchild  
Jean Gottman  
Andrew Goudie  
Peter Gould  
Willaim L. Graf  
Torsten Hägerstrand  
Peter Haggett  
Susan Hanson

John Fraser Hart  
Richard Hartshorne  
David Harvey  
Ann Henderson-Sellers  
Alexander von Humboldt  
Ellsworth Huntington  
Walter Isard  
John B. Jackson  
R.J. Johnston  
Terry G. Jordan  
Immanuel Kant  
Robert W. Kates  
Fred B. Kniffen  
James C. Knox  
Vladimir Köppen  
Peter Kropotkin  
Thomas Kuhn  
Aldo Leopold  
Peirce Lewis  
Halford J. Mackinder  
Thomas Malthus  
Curtis F. Marbut  
Melvin G. Marcus  
George Perkins Marsh  
Karl Marx  
Donald Meinig

Gerardus Mercator  
Milutin Milanković  
Lewis Mumford  
Stan Oppenshaw  
James Parsons  
Richard Peet  
Friedrich Ratzel  
Carl O. Sauer  
Fred K. Schaefer  
Ellen Churchill Semple  
Neil Smith  
Edward W. Soja  
J.E. Spencer  
Arthur N. Strahler  
J.H. von Thunen  
Waldo R. Tobler  
Glen Trewartha  
Yi-fu Tuan  
Billie Lee Turner  
Thomas R. Vale  
Michael J. Watts  
Jesse H. Wheeler  
John K. Wright  
Gilbert White  
M. Gordon Wolman  
Wilbur Zelinsky

## 11. Idealized degree calendar

Fall semester 1	Winter semester 1	Summer	Fall semester 2	Winter semester 2
Geog 8760 <i>Geographic thought</i>  Course on systematic interests  Methods course	Seminar  Geog 8750 <i>Research design</i>  Course on systematic interests		Seminar  Methods course  Geog 8080 or 8090 <i>Research hours</i>	Course on systematic interests  Geog 8080 or 8090 <i>Research hours</i>
Identify research problem; Begin <i>Program of Study</i> form (M1)	Develop proposal; Submit M1 form; Identify committee (complete form M2 or G2); Meet with committee	Conduct fieldwork or other data collection; Begin research question analysis	Complete analysis of research question; Begin writing thesis/ paper; Professional presentation	Complete writing thesis/ paper; MA exam/ defense

## 12. Other details

### **Desk Space, Keys, Mailboxes**

The Department attempts to accommodate every graduate student who requests desk space. Teaching and Research Assistants typically are assigned desk space in room 2. A graduate student without an assistantship should direct a request for desk space to the Department Chair.

Each graduate student has a mailbox in Room 2, and is issued keys to this room, to the Jesse H. Wheeler Library (Room 102), and to an exterior door of Stewart Hall. The Department's Administrative Assistant orders keys and maintains key records, thus all key questions should be directed to her. An absence from the university of longer than one summer semester requires the return of all department and building keys, to be reissued if necessary at a later time.

### **Colloquium**

The Geography colloquium is a public lecture by an invited speaker, and is generally scheduled for once or twice per semester. Colloquia are intended as broadly appealing presentations by geographers or others with geographic interests, and are an important component of the professional experience of graduate education. We expect all graduate students to attend each colloquium and get involved in the discussions. The Colloquium is also an ideal setting to present a well-developed research project and receive feedback from the MU geography community. As each graduate student must give a professional presentation before they graduate, the colloquium series offers one important outlet for doing so.

## **Celebrations and Awards**

The Department hosts several annual events in honor of our incoming students, graduating students, and alumni. A dinner and “one-slide slideshow” normally kick off the school year in August as a chance for new and returning graduate students and faculty to meet just prior to the fall semester. A homecoming barbeque in honor of visiting alumni is held each October, and a celebration of graduates is held at the end of the year in May. These departmental celebrations are important to the sense of community encouraged in Geography, and it is important to plan on attending these events (and to consider bringing something to put on the table). Without events such as these, it would be too easy to get absorbed in our own lives and forget that we are a community of geographers.

Each year several exemplary graduate students are selected as recipients of awards for scholarship, teaching and professionalism; winners are announced at the May graduation celebration. The *Jesse H. Wheeler Graduate Achievement Award* is presented to a student that follows in this former faculty member’s model of academic excellence; the *Richard G. Boehm Outstanding Graduate Student Award* honors a student demonstrating superb scholarship and departmental citizenship; and one student is selected as the recipient of the *Outstanding Student Teaching Award*.

## **Graduate Student Representatives**

Student representatives to the Departmental faculty meetings and for the University Graduate Professional Association are elected early in the fall semester by the graduate students.

## **GPA Requirements**

Graduate students are required to maintain a minimum GPA of 3.0. This GPA requirement pertains to all graduate-level courses taken, not just courses included in a student's program of study. If a student's cumulative GPA falls below 3.0, the Office of Research & Graduate Studies places that individual on academic probation. A second semester of probation is possible for students who have demonstrated improvement in GPA and whose Advisor recommends such an extension. Note: Summer Session does not count as a "semester" for probationary purposes. Thus the summer semester can be an opportunity for students to improve their GPA.

If a student's cumulative or term GPA falls below 2.0, he or she is subject to dismissal. The Office of Research & Graduate Studies will consider an Advisor's written request that the dismissal be postponed and allow a semester of probation. If a student is dismissed he or she is ineligible to enroll in any MU course carrying graduate credit, including extension, continuing professional education, and independent study courses. In addition, the student will not have an option to enroll as a non-degree-seeking graduate student.

If a graduate student takes undergraduate level courses (all courses numbered below 7000) on an A-F basis, the student information system creates an undergraduate GPA for that student. Any undergraduate GPA accrued by a MU graduate student does not affect the undergraduate GPA earned at another institution. However, if the graduate student received his bachelor's

degree from MU, undergraduate credit taken as a graduate student will affect his or her MU undergraduate GPA.