

# GRADUATE PROGRAM HANDBOOK – GEOGRAPHY

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## **1. Graduate Curricula in Geography**

The School of Geography and Development of the University of Arizona offers graduate programs leading to the Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in geography. The School's graduate curricula are designed to encourage student participation in research seminars and in formal geography coursework. Heavy emphasis on student enrollment in individual studies (with exception of thesis or dissertation) is discouraged. The School offers opportunities for specialization in many areas of geography that reflect the teaching and research interests of the faculty.

Please note these three essential UA Graduate College websites for the most current information: (A) Graduate College, <http://grad.arizona.edu>; (B) Policies and Procedures, <http://grad.arizona.edu/degrecert>; (C) New and Current Students, <http://grad.arizona.edu/current-students>. These websites contain the formal statements of university and department minimum requirements for all degrees. Students are expected to be familiar with these requirements, particularly those relevant to coursework, scholarship, exams, residency, and deadlines for filing required documents.

The UAccess Student website, <http://uaccess.arizona.edu/>, provides a complete list and brief description of geography courses that carry graduate credit (courses numbered 500 and above).

The School also offers a one-year, professional M.S. degree in Geographic Information Systems Technology (GIST). This program and its courses are separate from the M.A. and Ph.D. programs described in this Handbook ( <http://geography.arizona.edu/node/207>).

### **1.1 Courses Offered for Graduate Students**

The School offers four types of courses for graduate students: (1) core courses; (2) other graduate credit courses; (3) jointly convened graduate/ undergraduate courses; and (4) individual studies. Unless otherwise noted, all courses are worth 3 units per semester.

#### **1.1.1 Core Courses**

The core courses are fundamental to graduate education. Core course requirements are as follows:

1. GEOG 689: History of Geographic Thought
2. GEOG 500: Research Design
3. An advanced methods requirement of three units for the M.A. and six units for the Ph.D. in the student's areas of study. These methods units should be tailored to the needs of each student and can include regular graduate or jointly convened courses or independent study, within or outside the School as appropriate.

GEOG 689 and GEOG 500 must ordinarily be completed during the first year in residence. For some new Ph.D. students, however, it may be advisable to wait one year before taking GEOG 500. GEOG 689 is offered each Fall semester and GEOG 500 is offered each Spring semester.

GEOG 689 is a reading and discussion seminar concerned with major changes in the structure of geographic thought, with an emphasis on developments in the 20<sup>th</sup> and 21<sup>st</sup> centuries. In addition to surveying major trends in paradigmatic approaches, the course also provides students with the conceptual tools to evaluate these trends relative to cross-cutting issues of epistemology, ontology, and methodology.

Geography 500 is a course aimed at developing student research agendas and programs through rigorous proposal writing. The course takes the form of a collaborative workshop to familiarize students with identifying research problems, framing questions, reviewing literature, selecting methodologies, and presenting research in light of its intellectual contributions and broader impacts. The course seeks to encourage students to interact with their advisors, plan a course of research, and focus their reading and thinking, whether in human geography, physical geography, spatial techniques, or any other specialty. The result of the course is a draft proposal.

### **1.1.2 Graduate Credit Courses**

Enrollment in courses and seminars numbered 500 and up is normally exclusive to graduate students. With approval of the Director of Graduate Studies, credit may be applied to graduate degree requirements without restriction.

All seminars (GEOG 696) may be repeated for credit. A number of seminars are typically offered each semester, with specific topics and descriptions for that semester. The semester's offerings are announced prior to the registration period.

### **1.1.3 Professional Development**

The School offers several one-credit courses in different aspects of professional development. Graduate students are encouraged to take any or all of these courses and can apply the credits towards the requirements for graduation (with the exception of GEOG 695A, Colloquium, which is required but whose credits do not apply towards graduation).

GEOG 695A Colloquium: Current Topics in Geography [1 unit]  
GEOG 695B Professional Development [1 unit]

GEOG 695C Preparing Future Faculty: College Teaching [1 unit]

GEOG 695D Preparing Future Faculty: Writing Workshop [1 unit]

### **1.1.4 Jointly Convened Graduate/Undergraduate Courses**

Some graduate courses are held in conjunction with upper level undergraduate courses, although graduate students must complete additional work. Such classes are typically based on lectures rather than discussion. The School allows a maximum of six units of these jointly convened courses to count towards graduate degree requirements (see sections 2 and 3).

### **1.1.5 Individual Studies**

Graduate students can register for different kinds of individual study and professional development. Up to nine of these credits (including GEOG 910 Thesis credits) can apply to requirements for the M.A. degree (see sections 2 and 3). In the following list, the number in brackets refers to the number of credits permitted each semester, not the number of credits required for graduation. (For an M.A., at least one and up to six credits of GEOG 910 are required for graduation. For a Ph.D., 18 credits of GEOG 920 are required; see section 3.1.)

GEOG 593 Internship [1 to 5 units]  
GEOG 599 Independent Study [1 to 6 units]  
GEOG 699 Independent Study [1 to 6 units]

GEOG 900 Research [1 to 6 units]  
GEOG 910 Thesis [1 to 6 units]  
GEOG 920 Dissertation [1 to 9 units]

### **1.2 Course Load**

Four courses (12 units) per semester constitute a normal load for full-time students. The maximum allowed is 16 units per semester. Under most circumstances, graduate research and teaching assistants employed by the School are expected to register for three courses (nine units) each semester, in addition to the Colloquium (GEOG 695A). Adjustments in student load and sequence of courses may be made to accommodate the schedules of part-time students, as long as consistent progress towards degree objectives is apparent. All graduate students in residence are required to take the 1-unit Colloquium each semester (although these units do not count towards degree requirements).

### **1.3 Advising and Mentoring**

Successful graduate study relies on effective relationships between the student and the advising faculty member(s). Upon arrival in the School, each new graduate student is assigned a temporary faculty mentor, based on their stated research interests. New students meet with the Director of Graduate Studies and with their temporary mentor at the start of their first semester to discuss educational objectives and plan a tentative program of study. Student and mentor typically share similar interests, and in many cases the mentor will become the student's thesis or dissertation advisor and committee chair. In other cases, a student's advisor and other committee members will be different from his/her initial mentor. Students are encouraged to develop and maintain informal mentoring relationships with different faculty members, including but not limited to those faculty who are formal members of the student's exam or thesis committees.

The formal advising relationship is agreed to by mutual consent through discussion between the student and the faculty member concerned. A student may change mentors and advisors, but the change must again be by mutual consent, and should be done in consultation with the Director of Graduate Studies.

New students are also strongly encouraged to introduce themselves on arrival to the School Director, staff, and members of the faculty. New students are to be available for orientation several days before the beginning of classes. Students holding graduate assistantships are to be available at least one week prior to the beginning of classes for training sessions and assisting in course or laboratory preparation.

Continuing graduate students should consult with their mentors and advisors as often as necessary during each semester, and with the Director of Graduate Studies at least once each year or whenever necessary. Students are responsible for planning ahead enough to ensure appropriate course registration, and to meet any filing deadlines specified by the Graduate College.

### **1.4 Satisfactory Academic Progress**

Satisfactory academic progress towards completion of a degree will be assessed each Spring semester by the School's Graduate Committee, as part of the annual review of current graduate students and new applicants to the program. Every graduate student must file an annual progress report as part of this process, which is due in February and covers the preceding calendar year, and mentors/advisors are asked to evaluate their students' progress towards degree requirements. See the details set forth in this Graduate Handbook for specific requirements and expectations.

If a student fails to make satisfactory progress, the student will be notified in writing with a statement of necessary corrective action--specified by the Graduate Committee in consultation with the student's mentor/advisor--and a deadline for completion of such action. If a student believes an assessment of unsatisfactory progress to be in error, the student may appeal in writing to the Graduate Committee within the next three months. A student who fails to complete the required work satisfactorily by the deadline may be deemed ineligible for TA funding. Students can re-apply for eligibility for funding once the required corrective action has been satisfactorily completed. The request to restore eligibility for TA funding must be supported by the Graduate Committee and the Director. There is no guarantee of restored eligibility.

**2. Master of Arts (M.A.) Degree in Geography**

At the M.A. level, the School offers two types of degrees, the thesis option and the professional (or non-thesis) option. In both cases, students must take a minimum of 33 units of graduate credit (roughly 11 courses), including:

*Core:* nine units (three courses) (see section 1.1.1).

*Geography Courses:* 12 units (four courses) of graduate credit courses (section 1.1.2); up to six of these units may be jointly convened graduate/ undergraduate credit courses (section 1.1.4) and/or independent studies other than thesis or dissertation units (section 1.1.5).

*Electives (Geography and other):* 12 units (four courses) of graduate credit courses in SGD and other departments, including independent studies, thesis, and dissertation credits (section 1.1.5).

The 33 units offered for the degree may not include more than nine units of thesis, internship, and/or independent studies (see section 1.1.5). In addition to the 33-unit minimum, students are also required to register for one unit of GEOG 695A (Colloquium) during each semester in residence, although these units do not count towards degree requirements.

The Director of Graduate Studies may approve exceptions to the above requirements.

Most students take two years as full-time students to complete the M.A., assuming that they are working as graduate assistants and taking nine units of credit per semester. This timing applies to both thesis and non-thesis options. Graduate credit, to be applicable towards the M.A. degree, must have been earned no more than six years prior to the completion of the requirements for the M.A. degree.

The following plan outlines the normal progression towards the MA degree:

<i>Semester</i>	<i>Units</i>	<i>Courses</i>
1	3 3 3	GEOG 689 Geography Graduate-only Course Geography Graduate-only or Jointly convened Course
2	3 3 3	GEOG 500 Geography Graduate-only Course Geography Graduate-only or Jointly convened Course
3	9	Geography/Elective Courses

4	6	Geography/Elective and Thesis Units
<b>Total:</b>	33*	* (not including GEOG 695A (Colloquium) each semester)

### **2.1 Plan of Study**

The Graduate College requires that a Plan of Study be filed by the end of the second semester. The Plan of Study should identify any courses the student intends to transfer from other institutions, courses already completed at the University of Arizona which the student intends to apply towards the M.A. degree, and additional courses the student plans to complete to fulfill degree requirements. The Plan of Study must have the signature approval of the student's advisor (committee chair) and the Director of Graduate Studies before it is submitted to the Graduate College. The Plan of Study can be modified later if necessary.

### **2.2 M.A. Committee**

By the time the student has completed the core courses, and following consultation with his/her advisor, mentor, the Director of Graduate Studies, and other appropriate faculty, an M.A. committee will be recommended to the School Director. The Director will then appoint the committee (with modifications, as appropriate, after discussion). The student should work with his/her committee towards preparation of the thesis proposal and thesis, or towards preparation for the professional master's degree exam. See section 5 for further details.

### **2.3 The Thesis Option**

The thesis option is strongly recommended (indeed virtually required) for students who intend to pursue the Ph.D. Doing a thesis is also valuable experience in any field that values good research, analysis, and writing, whether academic or professional. Students choosing the thesis option must present a thesis proposal to their committee by the end of the third semester. Following approval of the thesis proposal, students are allowed to take thesis units (GEOG 910), of which up to six may be counted towards graduation. Registration for thesis units must be approved by the Director of Graduate Studies. Students who do not have a proposal approved by the end of the third semester may be required to take coursework to pursue the professional (non-thesis) option.

When the thesis is completed in final draft form, the student will present it to his/her committee as part of a comprehensive final oral examination: i.e., the thesis defense. The committee members must each be given a copy of the thesis (either electronic or paper) with sufficient time for review prior to the exam. The committee decides to approve or deny passage of the exam. Thesis credits are awarded after any changes suggested by the committee are made and committee members have signed the final copy of the thesis. The same rules apply whatever the thesis format, i.e. traditional monograph or journal article (see section 6).

A complete electronic version of the thesis (PDF), as well as complete, signed, and bound copies, must be filed with the School and the student's thesis advisor.

The School expects students to complete the thesis option within two years. The M.A. thesis defense should be successfully completed by the deadline established by the Graduate College in the 4th semester.

### **2.4 The Professional (non-thesis) Option**

The professional, non-thesis option is recommended for students who intend to pursue a non-

academic career in public or private sectors. Instead of thesis units, professional-option students typically take courses in a specialty area of interest. Students choosing this option take a comprehensive examination near the end of their course of study. The exam is administered by the student's committee and includes two parts: a four-hour written portion followed by an oral exam. The precise format of the written exam is left to the committee, but it is a comprehensive examination of the student's degree program, and not only an examination of the identified individual field of specialization or concentration. These examinations may only be scheduled in the student's final semester.

The School expects students to complete the professional degree within two years. The M.A. final exam should be successfully completed by the deadline established by the Graduate College in the 4th semester.

### **2.5 Optional Certificates and Tracks**

Within the constraints of these requirements, students are encouraged to develop a master's degree program tailored to their individual needs. Students are advised to consult with the relevant faculty members and the Director of Graduate Studies about tracks of study in sub-fields of geography including Critical Human Geography, Human-Environment Relations, Physical Geography, Regional Development, Methodology and Technology, and Water Resources and Policy.

The School is also involved in several of UA's graduate certificates in specialized areas. Current certificates include GIS and water policy, and a new certificate in science and decision-making is awaiting final approval. These are distinct graduate offerings that may include considerable overlap with degree programs, and may be a useful additional qualification for some students.

### **2.6 Moving from M.A. to Ph.D.**

M.A. students who are finishing their degrees in SGD and who want to continue in the same program for their Ph.D. must apply during the January-February period when the School is considering new graduate student applications for the following Fall. Current M.A. students must indicate their interest on their annual progress report in mid-February (section 1.4). At the same time they must also submit a statement of purpose for the Ph.D. and a completed Change of Degree Program Form (from the Graduate College website), and request letters of support from each of their M.A. committee members.

In general the School encourages our M.A. students to continue here if their goal is a Ph.D., and new students are often recruited and/or admitted to the M.A. program with that understanding. The procedure described here fosters orderly information-gathering and allows systematic review of Ph.D. applicants.

M.A. students progressing to the Ph.D. in SGD must have completed and passed the M.A. thesis or final examination before the start of their first semester in the Ph.D. program. Failure to do so will result in the student becoming ineligible for Ph.D. funding (see section 6).

### **3. Doctor of Philosophy (Ph.D.) Degree in Geography**

The doctorate is a specialized, research-oriented degree for both academic and professional careers. Individualized programs of study are developed under the direction of a student's advisor and other appropriate members of the faculty whose topical and regional research interests coincide with those of the student, and in consultation with the Director of Graduate Studies. The

advisor and committee members oversee the student's progress through coursework, the comprehensive exams (both written and oral), and the dissertation proposal, as described below.

The Graduate College imposes general requirements to be met by all doctoral students at the University of Arizona. These requirements include rules about residency and coursework minima in the major and minor fields; filing the plan of study; comprehensive exams in both major and minor fields; preparation of the dissertation; and the final exam. Students are responsible for learning these requirements and consulting the Graduate College website.

### **3.1 Coursework Credit**

Doctoral students in Geography must already have a master's degree, whether from our own program or from a different program or university. Continuing students must meet all requirements for the master's degree in geography (i.e., 33 credits, including a maximum of nine units of thesis, internship, and/or independent studies). In addition, a minimum of 18 units of coursework in geography and related programs at UA is mandatory (not including the dissertation and the minor); at least 12 of these units must be in courses or seminars exclusive to graduate students (see section 1.1.2). Additional coursework may be necessary to ensure proficiency in specific areas. Graduate credit earned for a master's degree counts towards the Graduate College requirement of 36 graduate credits in the Ph.D. major field. In addition, students are required to register for one unit of GEOG 695A (Colloquium) during each semester in residence (although these units do not count towards degree requirements).

After advancing to Ph.D. candidacy, all students must register for a total of 18 dissertation credits (GEOG 920), of which up to nine credits are allowed per semester. (Students may register for more than 18 dissertation credits over time, but only 18 are counted towards the degree.)

The Director of Graduate Studies may approve exceptions to the above requirements.

The Ph.D. degree must be completed within five years of passing the comprehensive examination (see section 3.9). If this deadline is not met, the School may allow the student to retake the comprehensive exam in order to regain eligibility to finish the dissertation.

Students who do not hold the M.A. in geography from the University of Arizona must complete the core course requirements, GEOG 689 and GEOG 500 (see section 1.1.1), during the first year of study; credit for these courses may be applied towards fulfillment of the 18-unit minimum requirement. Students who have M.A. degrees from other universities can transfer some or all of those credits towards their Ph.D.

### **3.2 Specializations**

Doctoral students must achieve a high level of competence in at least two fields of specialization. These fields are identified and described by the student in discussions with his/her advisor and advisory committee, as part of planning for the Ph.D. Comprehensive Exam (sections 3.8, 3.9). A student's fields may include, for example, topical, theoretical, methodological, and/or area studies expertise, as approved by the advisor and committee. ("What are a student's key words?" is another way to think about fields of specialization.)

### **3.3 Foreign Language**

A doctoral student who proposes to undertake research in or on a non-English speaking area is required to demonstrate the necessary language skills before taking the comprehensive exam (section 3.9). A language test will normally be arranged by the student's advisor, and be approved

by the student's advisory committee (section 3.8).

### **3.4 Research Methods**

Proficiency in at least one scholarly research method is required for the Ph.D. degree. Normally this proficiency will be acquired and demonstrated through the successful completion of specialized methods coursework, which count as part of the Core (section 1.1.1). The appropriate mix and sequence of courses must be approved by the student's advisor and the Director of Graduate Studies.

### **3.5 The Minor Program**

The School requires all Ph.D. students to have a Ph.D. minor in another department or program on campus. The minor should be complementary to the student's chosen specializations and is subject to approval by the student's advisor and the Director of Graduate Studies. In special circumstances, typically for students with strong previous qualifications in another discipline and insufficient background in geography, a Geography Ph.D. student may minor in geography in order to acquire necessary breadth and depth. This depends on the recommendation of the student's advisor and the Director of Graduate Studies.

The department or program administering the minor specifies its required content and participates in the student's comprehensive exam. The minor department may choose to waive its portion of the written examination, but must participate in the oral examination. The Ph.D. minor in most disciplines involves a minimum of four courses (12 units) of graduate work. At the discretion of the minor department, appropriate courses taken in the student's master's program may be included. The minor department is not required to be represented on the student's dissertation committee.

See section 4 for more details about the Ph.D. minor in Geography.

### **3.6 Core Course Performance**

For new Ph.D. students to remain in good standing, they must complete the core courses with a grade of B or better, and receive positive evaluations of progress and potential from their advisors, their core course instructors, and the Director of Graduate Studies at the end of the first year of doctoral study.

### **3.7 Plan of Study**

The Graduate College requires that a Plan of Study be filed no later than the third semester in residence. The Plan of Study should identify courses the student intends to transfer from other institutions, courses already completed at University of Arizona which the student intends to apply towards a graduate degree, and additional courses the student plans to complete to fulfill degree requirements. The Plan of Study must have the signature approval of the student's committee chair and the Directors of Graduate Studies of both major and minor programs before it is submitted to the Graduate College.

### **3.8 The Ph.D. Advisory (Comprehensive Exam) Committee**

Following a student's completion of the core courses (see section 1.1.1), and in consultation with his/her advisor, other faculty, and the Director of Graduate Studies, an advisory committee will be proposed to the School Director. The Director will then appoint the committee (with modifications, as appropriate, after discussion). This committee will be charged with guiding the

student in the selection of appropriate coursework leading to the comprehensive exam and with conducting and evaluating that exam. See section 5 for more details about committee membership.

### **3.9 The Ph.D. Comprehensive Exam**

Before admission to candidacy, and after all (or almost all) coursework is completed, the student must pass a general exam in geography. This exam is intended to test the student's fundamental and comprehensive knowledge of the field of geography and the chosen minor field of study. The exam includes written and oral portions, whose timing and format are governed by the School and the Graduate College. Results from the written portion of the exam are reported to the student before the oral exam. Students intending to take the comprehensive exam should consult with their advisory committee about preparation for the exam, and with the Director of Graduate Studies and the Graduate College about filing deadlines, procedures, and forms required. (Students are advised to bring key forms to their oral exam, in order to get signatures from all committee members.)

### **3.10 The Dissertation Committee**

Once the comprehensive exam has been completed successfully, the student forms a dissertation committee whose members are formally appointed by the School Director. Although the composition of this committee may be the same as the advisory (comprehensive exam) committee, it need not be. This committee will be charged with guiding the student through the preparation of the dissertation proposal, the subsequent research and writing, and the final dissertation defense. The rules for composition of the dissertation committee are similar to the advisory (comprehensive exam) committee. See section 5.

### **3.11 The Dissertation Proposal**

The student must submit a dissertation proposal to all members of the dissertation committee, based on previous discussions with each member. The specific format of the proposal is determined by the dissertation chair and committee. There must be a meeting between the student and the entire committee to discuss the proposal and suggest changes. Students are also encouraged to present the proposal in an informal setting (e.g., brown-bag seminar) to inform the School of their work and get feedback. The committee must approve the dissertation proposal for the student to advance to candidacy.

### **3.12 Advancement to Ph.D. Candidacy**

After passing the comprehensive examination and receiving approval for the dissertation proposal, the student advances to doctoral candidacy (also known as ABD, "all but dissertation"). The student must follow Graduate College rules and procedures, as updated on the Graduate College website. At this point the student may register for Dissertation credits (GEOG 920; see section 3.1).

### **3.13 The Oral Dissertation Defense Examination**

The Oral Dissertation Defense Examination consists of two parts, one open to the public and one confined to the dissertation committee. In the public part, the Ph.D. candidate must present the dissertation to the dissertation committee and to interested members of the School and University, both faculty and students. This presentation must be announced publicly and in advance. The presentation should not exceed an hour and may include a question-and-answer period. The second part of the defense follows immediately after the presentation and entails an oral examination by the dissertation committee. This examination is not open to the public.

The committee members must each be given a copy of the dissertation (electronic or paper) with sufficient time for review prior to the exam. The advisor and committee members should provide feedback on the draft in a timely manner (before, or as soon after the defense as is possible). The committee decides to pass or fail the student. A grade for dissertation credits is awarded after any changes suggested by the committee are made and committee members have signed the final copy of the dissertation. Complete, signed and bound copies of the dissertation must be filed with the School and the dissertation advisor; electronic copies should be submitted to the School and the Graduate College.

#### **4. Doctor of Philosophy (Ph.D.) Minor in Geography**

The doctoral minor in geography (for Ph.D. students majoring in other disciplines at UA) consists of a minimum of 12 units of graduate coursework in geography, including a maximum of 3 units of independent study. The program must be approved by the Director of Graduate Studies and an appropriate SGD faculty member, who is named to supervise the student's geography minor and to serve on the student's comprehensive exam committee. Students considering the Ph.D. minor in geography should consult with the Director of Graduate Studies and with potential SGD committee members at an early stage about coursework and preparation for the comprehensive examination. The participation of the SGD committee member must be agreed to by mutual consent through discussion with the student. The School does not require that an SGD faculty member serve on the student's dissertation committee. See section 5.

As noted above (section 3.5), geography Ph.D. students can also minor in geography under special circumstances. These geography students must meet the requirements of the preceding paragraph, including an SGD faculty member to represent the minor on the student's comprehensive exam committee.

#### **5. Committee Membership**

There are three kinds of committee members. SGD considers all faculty members with at least a partial appointment in SGD to be *regular* faculty. Tenured, tenure-track, and continuing-eligible faculty in other UA departments or programs may be *affiliated* with SGD. Faculty at other academic institutions or non-academic professionals may serve as *outside* committee members, if approved by the Graduate College.

##### **5.1 M.A. Committees**

The Graduate College requires that M.A. thesis committees must have three members, of whom at least two must be tenure-track UA faculty. SGD imposes the additional requirement that at least two committee members must be regular SGD faculty, and a third member may be affiliated faculty in another UA department or program. The same rule applies to M.A. exam committees for students who have chosen the non-thesis option (section 2.4). In special circumstances, the School may approve a third committee member from outside UA, if approved by the Graduate College.

Affiliated faculty members may chair a committee as long as two regular SGD faculty members serve on the same committee. Outside committee members may co-chair a committee with a regular SGD faculty member.

##### **5.2 Ph.D. Committees**

The Graduate College requires that Ph.D. *comprehensive examination committees* (also known as

*advisory committees*) must have at least four members, of whom at least three must be tenured or tenure-track. SGD imposes the additional requirement that at least three committee members must be regular SGD faculty, including the student's major advisor. Affiliated UA faculty may serve as a fourth or fifth member of this committee, and may chair or co-chair a committee as long as two regular SGD faculty members serve on the same committee. One committee member must represent the student's Ph.D. minor program, as approved by that program.

Ph.D. students from other UA programs who are doing the Ph.D. minor in Geography must select at least one regular SGD faculty member to serve on their comprehensive exam committee, as approved by the Director of Graduate Studies (section 4).

The Graduate College requires that *dissertation committees* must have at least three members, all of whom are tenured or tenure-track UA faculty (or approved as equivalent). SGD requires that at least one of these committee members must be regular SGD faculty, and a second member must be either regular SGD or affiliated UA faculty. Affiliated faculty may co-chair a committee with a regular SGD faculty member. In special circumstances, the School may approve a fourth or fifth committee member from outside UA, if approved by the Graduate College.

Students and faculty members are advised to read these School and Graduate College guidelines carefully to avoid misunderstanding. In all cases, the School Director (with advice from the Director of Graduate Studies) will decide the final approval and appointment of graduate examination committees.

## **6. Thesis and Dissertation Formats**

Students have the choice of preparing the master's thesis or doctoral dissertation either in the traditional format (i.e., a series of chapters in book or monograph style) or in journal paper format as a related set of published and/or publishable articles. The appropriate format should be chosen after consultation with and approval by the student's thesis or dissertation committee. Students must follow Graduate College guidelines for preparing and assembling the thesis/dissertation in monograph or journal paper format, as well as following the School policies below.

1. All SGD policies shall conform to Graduate College requirements.
2. This policy addresses only the format of the thesis/dissertation, and what materials are included in different formats. Expectations about the content, and the amount of work required to carry out the project, are the same for both the traditional and the journal article formats, and are decided by the student's thesis/dissertation committee.
3. Following Graduate College guidelines, there is no specific requirement about the number of articles required for the thesis/dissertation, and the student's committee should determine the appropriate number. SGD follows the general guideline of at least one paper for the thesis and at least three papers for the dissertation.
4. For the paper format, acceptable articles are *published* papers in refereed journals and *publishable* papers (i.e., that will be submitted for publication in refereed journals, subject to approval by the student's thesis/dissertation committee). The thesis/dissertation may mix published and publishable papers. For publishable papers, students must identify the journal for which the manuscripts were prepared and follow the journal's guidelines for manuscript preparation.

5. The candidate's major advisor and the thesis/dissertation committee are responsible for ensuring that the student does a significant part of the work in the papers. The student's proposal will specify the nature of the student's contribution. Thesis/dissertation committee meetings and the final oral defense can also be used to clarify any questions that might arise regarding the student's contribution. In the introductory chapter of the thesis/dissertation, the student must identify at least one aspect of the project as his/her own original contribution. The student must be first author of at least one paper in the thesis/dissertation.

6. A potential conflict of interest arises at the thesis/dissertation defense in cases where members of the student's thesis/dissertation committee are also co-authors on one or more of the papers. It is the responsibility of the committee chair (the student's major advisor) to alert the School Director if more than one committee member is also a co-author. In such cases the Director may modify the composition of the committee, or may add to the committee a new member who is not a co-author.

### **7. School Admissions Requirements**

In addition to application materials sent to the Graduate College, all applicants are required to submit the following directly to the School: three letters of recommendation, scores on the general sections of the Graduate Record Examination, official transcripts, and a statement of intended research. The application deadline is January 15 for all students, both domestic and international, for admission to the program in the following Fall semester. Applicants are advised to check the Graduate College website for specific instructions on where to send the various application materials. Applicants for whom English is not the native language must also submit the result of the Test of English as a Foreign Language (TOEFL) or International English Language Testing Service (IELTS).

Special admission requirements apply to applicants to the doctoral program. First, the School will not admit potential doctoral students whose interests do not coincide with the topical and regional specialties of the faculty. Second, potential doctoral students with master's degrees in disciplines unrelated to geography or with no previous graduate credit in geography – either from UA or elsewhere – may need to be admitted to the School's M.A. program. Third, good standing in the doctoral program is subject to the Core Course Performance requirement specified above (see Section 3.6).

Special requirements also apply to students who are currently in the School's M.A. program and who wish to continue into the Ph.D. program. In the final year of an M.A. degree in the School, a student must petition the School for continuation into the Ph.D. program, by the date in February when students' annual progress reports are due. The Graduate Committee requires a new statement of purpose and three letters of recommendation from the student's M.A. committee.

### **8. Teaching and Research Assistantships**

Prospective and currently enrolled students are eligible to apply each year for support from Graduate Teaching Assistantships (GTA) and Graduate Research Assistantships (GRA). Continuing students can request a GTA or GRA in their annual progress report, which is due each February and covers the preceding calendar year. Awards are normally made for one academic year, sometimes for one semester. Remission of nonresident tuition (a Graduate Tuition Scholarship) and health insurance are included as part of the award.

A limited number of fee waivers covering nonresident tuition (Graduate Tuition Scholarships) and in-state fees (Graduate Registration Scholarships) may be obtained independent of assistantship awards.

GTAs are typically offered as half-time employment, requiring 20 hours of work per week. One-quarter- and one-third-time assistantships are also offered, requiring an average of 10 or 13 hours of work per week, respectively. GTAs are assigned to conduct laboratory or discussion sections, to help individual faculty with course preparation or grading, and to carry out other teaching duties assigned by the School Director. Exceptionally qualified students may occasionally be assigned to teach a course or section of a course under the supervision of a faculty member.

GRAs are offered subject to availability of funding through research grants awarded to individual faculty (or teams of faculty). Hourly employment is commonly available to assist individual faculty with research, professional, or consulting projects. Many geography graduate students obtain hourly jobs or part-time assistantships with research units elsewhere on campus.

Because GRAs are supervised by the faculty who are the grants' PIs (principal investigators), it is essential that faculty PIs and grad student RAs communicate clearly about the specific work to be performed and agree about mutual expectations, on a case-by-case basis.

A question often arises about the relationship between a graduate student's RA work and his/her own thesis or dissertation research. Different faculty members have different views about how close this relationship should be. Some faculty strongly prefer that a student's RA work coincides with his or her thesis or dissertation, which typically means that the faculty PI is both employer and advisor. Other faculty consider RA work and thesis/dissertation to be separate. Faculty and grad students (both new and continuing) should be sure to discuss these mutual expectations clearly. Since graduate students occasionally change advisors or thesis/dissertation topics, it is essential that they complete any RA work for which they have been employed. Students can ask the DGS for help or advice if desired.

Renewal of graduate teaching assistantships requires reapplication each year. Awards are contingent on budgetary constraints, as well as on satisfactory performance of assigned duties and satisfactory progress towards completion of degree requirements. A faculty committee meets each spring to review and rank all applicants. The probability of receiving an award is thus dependent on the available budget, the size and quality of the pool of entering and continuing students and the number of positions available. With satisfactory performance and progress, M.A. students admitted with funding may normally expect support through their 2nd year in the program. Those that continue on to the Ph.D. program may normally expect support through an additional three years (i.e., for a total of five years). New Ph.D. students admitted with funding may normally expect support through their 4th year in the program.

## **9. School Activities**

The School fosters activities conducive to a stimulating intellectual environment and to professional advancement. In particular, the School encourages graduate students to disseminate their research through presentations at professional meetings and through publication in professional journals.

The School sponsors a series of weekly colloquia. These meet in Harvill 404, usually on Friday at 3:30 p.m. Speakers include visiting scholars, School faculty reporting on current research,

academic staff from other units on campus, and practitioners engaged in work of interest to geographers. Graduate students are encouraged to make suggestions of potential speakers to the Colloquium Committee. Regular attendance at the colloquium is required of all graduate students in residence, who receive credit for GEOG 695A (although these units do not count towards degree requirements).

Graduate students organize a “Brown Bag” forum in which graduate students and faculty present their ongoing research to their peers. This informal forum provides students and faculty the opportunity to share research interests, peer review each other's work, and encourage scholarly interaction among students and faculty.

Graduate students in the School publish *you are here, the journal of creative geography*. The journal is an independent, annual publication that seeks to explore the concept of place through articles, fiction, poetry, essays, maps, photographs, and artwork. *you are here* includes submissions from geographers, historians, anthropologists, architects, scientists, writers, and artists.

The Southern Arizona Geographical Association (SAGA) is the School's graduate student association. SAGA's main goal is to provide a forum for graduate students to voice their concerns about professional development, the School, or teaching experiences. Many activities are also geared towards encouraging social interaction among the graduate students. With the broad diversity in research interests and backgrounds, it is important for all of the graduate students to have an opportunity to share their views and to develop lasting relationships that will not only carry them through their years at Arizona, but also through their careers. Intramural teams are often sponsored by SAGA, for example, as is an annual campout during the fall semester. The development of School t-shirts is also handled by SAGA. Other student organization activities have included the 1st Annual Western Geography Graduate Student Conference in 1997 and an Invited Guest Speaker Program.

### **10. Graduate Degree Mileposts and Forms**

The mileposts below are a guide to important administrative steps that students take as they progress towards the M.A. and Ph.D. degrees. The listing is in chronological order, although precise sequence may vary a bit. On-line forms are available on the School or Graduate College websites. Students should check the Graduate College website for the complete and up-to-date forms required.

<b><i>Time</i></b>	<b><i>M.A. Degree</i></b>	<b><i>Ph.D. Degree</i></b>
Start of 1st Semester	Orientation, diagnostic check and initial advising	
By end of 2nd Semester	Choose regular advisor/committee chair	
End of 2nd Semester	Request appointment of M.A. committee (SGD form)  Submit Plan of Study to Graduate College (GC form)  Decide thesis option or not	Check foreign language, fields of specialization, research tools, and other coursework planning  Check that Core Course Performance requirements are/will be satisfied
End of 3rd Semester	Obtain committee approval of thesis proposal (thesis option only) (SGD form)	Request appointment of advisory committee (SGD form)  Submit Plan of Study to Graduate College (GC form)
4th Semester	Arrange M.A. Final Examination (thesis defense or comprehensive exam)  Prepare Completion of Degree Requirements form (GC form)  Apply to continue in Ph.D. program if desired	Choose areas of specialization and Ph.D. minor  Plan Comprehensive Exam when coursework is essentially completed
5th-6th Semester	N.A.	Take Comprehensive Exam (written and oral portions)  Submit Results of the Oral Comprehensive Exam for Doctoral Candidacy; Committee Appointment Form (GC forms)  Request appointment of dissertation committee; obtain committee approval of dissertation proposal (SGD forms)  Dissertation research
7th Semester + more		Dissertation research and writing  Present and defend dissertation and earn Ph.D.