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# **GEOSCIENCES DEPARTMENT**

## **GEOGRAPHY PROGRAM**

### **Ph.D. DEGREE**

## **Graduate Information Handbook**

**College of Science  
Oregon State University  
Corvallis, Oregon 97331-5506**

Visit the Geosciences Department web site, [www.geo.oregonstate.edu](http://www.geo.oregonstate.edu),  
or the OSU Graduate School  
web site, [oregonstate.edu/dept/grad\\_school](http://oregonstate.edu/dept/grad_school), for  
current department and university information

**August, 2006**



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**I. SCHEDULE FOR GEOGRAPHY Ph.D. PROGRAM  
(Full-time students)**

<u>Activity</u>	<u>When</u>
1. Initial advising and selection of first term classes.	Before classes begin
2. Confirm agreement with a major professor.	1st – 2nd term
3. Select three additional committee members plus a graduate representative. Convene a <b>program meeting</b> to discuss coursework plan and research. File graduate program with Graduate School.	Before end of 3rd term
4. Certify language competency.	1st-6th term and before scheduling comprehensive examination
5. Prepare research proposal in consultation with major professor. Hold a <b>proposal review meeting</b> , submit on file with Geosciences Dept.	1st - 9th term. Program must be on file with Geosciences Dept.
6. Seek financial support for proposed research.	Ongoing
7. Complete courses on Graduate Program.	5th - 9th term
8. Prepare for comprehensive exams.	Ongoing
9. Complete written <b>comprehensive examination</b> , field problem, and oral examination	After completing 3, 4, 5 & 8 above.
10. Advanced to Candidacy. ABD status (“all but dissertation”).	Upon passing #9 above
11. Dissertation research and writing completed.	.
12. Submit pretext pages of dissertation to Graduate for editing.	Sc When scheduling final defense.
13. <b>Dissertation defense.</b>	Within 5 years of #10 above.
14. Convey two unbound final copies to the Graduate School, one electronic PDF copy to DSpace, and one bound copy to the Geosciences office.	Within 6 weeks of defense.

## GEOSCIENCES - GEOGRAPHY PH.D. PROGRAM

### II. INTRODUCTION

This guide was developed to provide information on graduate study for Geography Ph.D. degree students at Oregon State University. Students are encouraged to provide suggestions for the improvement of this guide by contacting the Program Director or Joanne VanGeest in the Geosciences Department. Please refer to the OSU Graduate School web site ([oregonstate.edu/dept/grad\\_school/](http://oregonstate.edu/dept/grad_school/)) for the **Graduate School Guide to Success**, as well as for the most important Graduate School regulations. When preparing the dissertation, double check with the Graduate School for current OSU requirements.

### III. PH.D. PROGRAM REQUIREMENTS

#### A. Responsibilities for Completing Graduate Program

**The student** should assume the major responsibility for his/her graduate program, follow department and university requirements, meet all deadlines, and initiate all steps involved in obtaining the degree; meet regularly with the major professor to discuss progress or difficulties in research, course work or other matters; and, if experiencing serious difficulties with the major professor, discuss the matter with the Director of the Geography Program.

**The major professor** should advise and guide students in their graduate programs, be informed of student progress and difficulties, edit research proposals and theses before they are given to other committee members, encourage active participation in departmental seminars, regional and national scientific meetings, and ensure that research, teaching, and other professional activities include student advisees whenever possible.

**Members of the student's graduate committee, including the Graduate Council Representative**, serve as experts in certain specialized fields; as interested editorial critics of the student's writing (especially the dissertation); and as participants in all meetings and examinations held during the student's program, including the final dissertation defense.

**Members of the Departmental Graduate Committee** are involved in admission of all graduate students, in the review of graduate student progress, and in graduate student matters determined by the Department Chair or faculty.

**The Department Chair** ensures that the graduate policy is implemented and department standards are maintained, assists in the solution of major problems that might arise during a student's program, and as resources and opportunities permit, allocates office and research facilities for graduate dissertation research. For Geography students, the Director of the Geography Program usually acts for the Chair in matters relating to the Geography Program.

#### B. Major Professor

Students admitted as "regular" graduate students will normally have a major professor who previously agreed to supervise the student's work. The Geography Program Director will act as a temporary advisor to graduate students admitted without a major professor and suggest appropriate supervisory faculty for a student's interest.

It is the responsibility of the student to seek acceptance by a member of the graduate faculty as the major professor. The decision is made upon mutual agreement between the student and the professor, and should be reported to the Geography Program Director.

### C. Student's Graduate Committee

The makeup of graduate committees is governed by the policies of the Graduate School, the Geosciences Department, and the Geography Program. The minimum committee sizes are as follows:

Degree	Major Prof	Dept Reps	External or Minor Reps	Graduate Council Rep	Minimum Total
Ph.D.	1	1-2	1-2	1	5

No committee is official until approved by departmental and Graduate School administrators. Administrative review will apply the following guidelines:

1. All committee members must hold appropriate appointments on the Graduate Faculty. Many OSU-associated academic staff and faculty do not have graduate faculty status that authorizes them to serve on graduate committees. It is important to check with the Program Director for eligibility questions.
2. The committee must be appropriate to represent the proposed course of study and the relevant degree authority. At least two members must be regular Geosciences faculty, as distinguished from courtesy faculty. The Geosciences Department Graduate Faculty listing can be obtained from the Geosciences Department office.

The Major Professor assumes principal responsibility for directing research activities. When the Major Professor is on a courtesy faculty appointment, a member of the Geosciences regular faculty must serve as co-chairperson of the dissertation committee and both must sign the approved dissertation. Before graduate program forms (which must be signed by the department chairperson) are submitted to the Graduate School, the Geography Program Director may review dissertation committee membership and, in consultation with the graduate committee, call for changes in composition of the committee.

Minor Professors must be from outside the Geography Program unless the minor area is entirely within geography. A minor is not required for the Geography Ph.D., but if the student desires one, Graduate School rules require the student to have taken at least one course from the Minor Professor's department.

The student's committee for the Ph.D. degree consists of a minimum of five graduate faculty members; the major professor, the departmental representative(s) (faculty members with some experience in the general area of the student's research), and a representative for each declared minor. The Graduate Council Representative is a full voting member of the committee, and is selected by the student from a list provided by the Graduate School. All committee members, including the Grad. Rep., attend all meetings, exams, and final dissertation defense.

### D. Grade Requirement

A minimum grade point average of 3.00 (B average) is required for all courses taken as a graduate student (even if they are undergraduate courses), and for courses included in the graduate program. **Neither grades below C nor S/U grades are accepted on a graduate program.** Since Ph.D. candidates are expected to be superior students, Geography Program policy requires a review of students if their GPA falls below 3.5. After consultation with the student's major professor, the graduate committee may recommend termination if it is felt that the low GPA is indicative of less than superior performance as a Ph.D. student. Effective sometime during the 2006-2007 academic year, any "I" (incomplete grade) will revert to an "F" if not removed within one year.

## E. Program Requirements

A Ph.D. Program (list of proposed courses) must be filed by all Ph.D. graduate students. The form is available from the Graduate School, on their website, or from the Geosciences office. Practice forms are included in Appendix C. **A student who does not file a program within the specified deadline will not be allowed to register for the next term.** The program is worked out under the guidance of the major and minor professors and is signed by the entire committee and the chairman of the academic unit before filing with the Graduate School. Changes in the program may be made by submitting a Petition for Change Form, available in the Geosciences Office or Graduate School. It is wise to file one Change Form near the end of the student's tenure so repeated filings are not necessary.

The following items should be addressed when preparing the Geography Doctoral Program:

1. Does the program show at least three years of full-time graduate work beyond the baccalaureate degree (a minimum of 108 credits is required for a Geography PhD)?
2. Does the program consist of a minimum of 50% graduate-level stand-alone courses (not 400/500 slash courses), for new programs filed Fall Term 2005 or later?
3. Does the program show at least 36 credits devoted to the Ph.D. dissertation?
4. Does the program contain at least one full-time academic year of regular non-blanket course work (i.e., a minimum of 36 credits)?
5. Does the program guarantee that the following residence requirement will be met: 1) a minimum of 36 graduate OSU credits, and 2) at least three terms of full-time graduate academic work (at least 9 credits/term) on site at the Corvallis campus or at an off-campus site approved by the Graduate School?
6. If a minor is declared, does it contain at least 18 credits (15 credits for an Integrated Minor)?
7. Does the program contain not more than 15 credits of blanket-numbered courses, other than dissertation? (Excess blanket-numbered courses are allowed to the extent that the program exceeds 108 credits.)
8. Does the program guarantee that all departmental requirements will be fulfilled? (A total of at least 108 hours are required for the Geography PhD degree at OSU.)
9. Do all transfer courses appear to fit the above-mentioned guidelines for transfer courses?
10. Are all transfer courses clearly identified as such?
11. Is the program meeting being held early enough in the student's academic career to permit the committee to contribute meaningful input to the program?

Geography Ph.D. requirements provide substantial flexibility for tailoring programs of coursework to fit individual student backgrounds, interests and career goals. Specific requirements are listed below:

- ◆ The major field must be either RESOURCE GEOGRAPHY, PHYSICAL GEOGRAPHY or GEOGRAPHIC INFORMATION SCIENCE.

- ◆ There must be a minimum of 108 graduate credits, including a minimum of 32 post-masters course credits taken at OSU and 36 hours of dissertation credits. M.S. credit hours can often be included in the calculation of the 108 credits when approved by the Program Director and Graduate Committee. When a student has not completed a previous geography degree, the Ph.D. program must include geography course work at least equivalent to that required for a geography M.S. program (see M.S. checklist in Section X.).
- ◆ In all cases, the Graduate Committee and Program Director, not the student, are responsible for deciding the type and amount of coursework required to complete the Ph.D. degree in Geography. They often conclude that coursework beyond the 108 credits is appropriate to achieve programmatic objectives.
- ◆ A foreign language is required in all doctoral programs. (see Section X. for details)
- ◆ A maximum of 15 hours of blanket number courses (501/601, 505/605, 507/607, 508/608) is allowed on a Ph.D. program.

#### F. Required Meetings

Geography Ph.D. committees must convene for the following sequence of meetings:

1. A **program meeting** to discuss the general direction of the student's research and the specific plan of coursework to be included in the graduate program to be filed with the Graduate School. This meeting is attended by only the student and committee members.
2. A **proposal meeting (aka proposal defense)** to hear the student present the dissertation research proposal. This meeting is open to the public, although the committee may want to convene privately to advise the student after the public has been given an opportunity to ask questions about the proposal.
3. A **preliminary exam meeting** for the oral examination of the student. This meeting includes only the student and committee, and follows the completion of the written examination and field problem. (see Section X. for details)
4. A **dissertation defense (final examination) meeting.** The student makes a public presentation of the dissertation. After responding to the audience questions, the committee continues the exam in closed session.

The Graduate Council Representative (GCR) is required to attend all of the above meetings except for the proposal meeting (proposal defense).

#### G. Scheduling of Meetings

Program meetings and preliminary and final examinations may be held during any period when school is in session. This excludes the periods between the regularly scheduled quarters and during official vacation periods. Students should be aware that most faculty are on appointment for only nine months a year, and are unlikely to be available during the three month summer period.

**It is the responsibility of each student to arrange meeting and exam times and places through the Geosciences Office, notify the Graduate School of scheduled exams, and remind each committee member of the scheduled meeting or exam.**

The major professor shall chair the program meeting, proposal meeting, and the examination portion of the preliminary and final oral meetings. The Graduate Council representative shall chair that portion of meetings which involve the evaluation of the student's performance.

## H. Assistantships

University regulations require all students with an assistantship to **register for a minimum of 12 hours each term while on a TA or RA**. Graduate Assistants may register for a maximum of 16 credits, but are advised to confer with their major professor or program director when registering for over 12 credits, in order to avoid a potential overload. Students on an assistantship can maintain their full time status, and avoid overloading themselves with coursework, by signing up for GEO 603 Thesis (1-16 hours) to "top up" their credits to the 12-16-credit level. Since GEO 603 credits get an R (research continuing) grade, they are not calculated in the grade point average. Since geography Ph.D. graduate programs must list 36 GEO 603 credits, there is an advantage to students making full use of the free tuition assistantship benefit by "banking" credits to avoid a big bill when presenting their completed dissertation.

"As a condition of their academic appointments, graduate teaching and research assistants are required to register for three credits above the minimum full-time load (i.e., a minimum of 12 credits) each term of the appointment during the academic year (fall, winter, and spring). During summer session, a minimum registration of 9 credits is required for graduate assistants. Audit registrations and enrollment in OSU Extended Campus courses may not be used to satisfy enrollment requirements for graduate assistant salary/stipend, tuition remission, or health insurance benefits." (excerpt from the Grad School website)

Revised 1/2006

#### IV. GUIDELINES & CHECKLIST FOR GEOGRAPHY DOCTORAL DEGREE STUDENTS

**FIRST ADVISING:** Initial advising and orientation is usually provided by the Director of the Geography Program. You should assume responsibility for this contact.

**CHOOSE AN ADVISOR:** By the end of your first term choose an advisor based on a community of interest. This first-selected advisor need not be your final major professor, but it is most advantageous not to delay the selection of a final major professor.

**FORM YOUR DOCTORAL COMMITTEE DURING SECOND OR THIRD TERM:** Minimum of five faculty: your major professor is the chairperson. At least two committee members must be regular Geosciences faculty (as distinguished from courtesy faculty), and one faculty member must represent the minor field, if a minor is chosen (minors are optional). A minor professor is not required if pursuing a certificate in Geographic Information Science. The Graduate School provides a list of Graduate Council representatives from which you choose an additional member to complete your committee.

#### **DURING SECOND OR THIRD TERM PREPARE AND FILE PROGRAM OF COURSE STUDY:**

Secure program forms from Graduate School or Geosciences Office. If a doctoral program is not filed by the end of the fourth term, the student is not making acceptable progress and may be dropped from the program.

- \_\_\_ Major field must be either RESOURCE GEOGRAPHY, PHYSICAL GEOGRAPHY or GEOGRAPHIC INFORMATION SCIENCE (a minor field is not required).
- \_\_\_ TOTAL course hours 90 including a minimum of 50 hours post-master's courses at OSU (500's, & 600's) exclusive of dissertation. When a student has not completed a previous geography degree, the Ph.D. program must include geography course work at least equivalent to that required for a geography M.S. program.
  - \_\_\_ must include ST 511 or equivalent
  - \_\_\_ must include GEO 515 History and Philosophy of Geography (GEO 618 Geoscience Communication is strongly recommended, but not required)
  - \_\_\_ must include GEO 548 Field Research in Geomorphology & Landscape Ecology (GEO 534 is also strongly recommended, but not required)
  - \_\_\_ must include a course in physical and a course in resource geography
  - \_\_\_ must include two courses in geographic information science
  - \_\_\_ must include 3 GEO 507 (1 cr.) geography research seminars (one must be taken concurrently with GEO 515)
- \_\_\_ One foreign language is required on all doctoral programs.
- \_\_\_ Dissertation - 36 hours in addition to course work and is part of major field
- \_\_\_ Maximum of 15 hours blanket numbers (501/601, 505/605, 507/607, 508/608).

**SCHEDULE PROGRAM MEETING WITH YOUR COMMITTEE:** After discussion with your major professor, schedule a meeting with all committee members. Your program should be informally reviewed by all committee members before meeting. **THE PROGRAM MUST BE APPROVED BY THE DIRECTOR OF THE GEOGRAPHY PROGRAM.**

**COMPLETE COURSE PROGRAM AND LANGUAGE REQUIREMENT AS APPROVED:** Note that any change in your program requires filing a Petition for Change in Graduate Program prior to scheduling your defense. Your GPA must be at least 3.00 in both major and minor; GPA's below 3.50 will be reviewed by the Graduate Committee because Ph.D.'s are expected to exhibit superior performance.

**ALL STUDENTS HOLDING AN ASSISTANTSHIP MUST REGISTER FOR A MINIMUM OF 12**

**HOURS WHILE ON APPOINTMENT:** If you are a full time student on a TA or RA appointment, it is wise to enroll in dissertation hours (GEO 603) to the maximum allowable each term (16). This saves tuition money since additional hours have no additional fee. If not on an appointment, a minimum of 9 credits is considered full-time. *"Audit registrations and enrollment in OSU Extended Campus courses may not be used to satisfy enrollment requirements for graduate assistant salary/stipend, tuition remission, or health insurance benefits."*

**University regulations require that all grad students must register continuously for a minimum of 3 graduate credits and pay fees, regardless of the student's location, if they will be using faculty time or any university or departmental facilities, including scheduling committee meetings and taking exams, until their degree is granted or grad student status is terminated, effective Fall 2002.\***

**PROPOSAL DEFENSE:** Prepare a formal proposal of a research problem and design of research. Schedule a meeting of the full committee, including the Grad Representative, and present the proposal. Normally serious research begins after the oral examination, however it is desirable to have begun consideration of your research problem earlier. Secure committee approval!

**PREPARE FOR YOUR PRELIMINARY EXAMINATION BY UNDERTAKING A COMPREHENSIVE REVIEW WITH THE GUIDANCE OF YOUR COMMITTEE.** (See Appendix B of the Geography PhD Graduate Information Handbook for details on examination.)

**SCHEDULE COMPREHENSIVE PRELIMINARY EXAMINATION:** The examination is in three parts, to be passed in sequence. Only the third part is scheduled with the Graduate School Office.

\_\_\_ Part I is a written examination on knowledge of your fields of specialization, and comprehension of the discipline of geography.

\_\_\_ Part II is a field problem that you are asked to formulate and analyze.

\_\_\_ Part III is a two-hour oral examination, scheduled with the Graduate School Office one week in advance and attended by the Graduate Council Representative.

Upon passing all three parts, the student is advanced to doctoral candidacy.

**RESEARCH AND WRITE YOUR DISSERTATION:** During your research and writing maintain rapport with your major professor and all committee members in order to gain their guidance. "Each PhD candidate must submit a dissertation embodying the results of research and giving evidence of originality and ability in independent investigation. The dissertation must be a real contribution to knowledge, based on the candidate's own investigation." The booklet "Preparing a Thesis or Dissertation at OSU: A Graduate Student's Guide" is available on the Web at [http://oregonstate.edu/dept/grad\\_school/](http://oregonstate.edu/dept/grad_school/). One way of meeting the requirements for a Ph.D. dissertation is to write a single narrative. An alternative is the publishable papers option. The option is three publishable papers, which must be related in their overall research theme. A publishable paper is one that is targeted to a specific journal, is in the format and length required for submission to that journal, and is deemed publishable by the student's graduate committee. The papers option shall include an introduction and literature review that ties the papers together into a common theme, all of which shall be bound together and submitted to the Department as a dissertation. The student's graduate committee and major professor must agree to the option before the student proceeds.

**SCHEDULE FINAL EXAMINATION (aka DISSERTATION DEFENSE):** After approval of your dissertation by your major professor and other members of your committee, schedule final examination with the Graduate School office. At this time students must submit only the pretext pages of dissertation to the Graduate School for editing instead of the entire draft. (See guidelines for defending final draft.) If Spring term, check the deadline dates. You should also apply for graduation with the Graduate School at this time.

**SUBMIT FINAL DISSERTATION:** Regardless of option (narrative or 3 publishable papers), the dissertation must be submitted as one bound hardcopy to the department and as one unbound hardcopy to the Graduate School. In addition, a single, electronic PDF (portable document format) file must be submitted to DSpace, the OSU Institutional Repository (aka Scholars Archive). See [oregonstate.edu/dept/grad\\_school/current/thesis.html](http://oregonstate.edu/dept/grad_school/current/thesis.html) for more information, especially instructions for electronic submittal of the dissertation.

\*See Continuous Graduate Enrollment Policy on Graduate School website, or check with Dept. Office for entire Executive Summary regarding continuous enrollment and leave of absence requirements.

Revised 8/2006

## **DEPARTMENT OF GEOSCIENCES GEOGRAPHY PROGRAM**

### **V. GUIDELINES FOR GAINING APPROVAL OF DISSERTATION PROPOSAL TOPICS**

The following procedures have been established to assure that candidates make maximum use of the members of their committee as advisors in the formulation of dissertation topics and research designs.

1. Identify the problem area. Discuss with major professor and committee members independently.
2. Read to determine existing research on topic.
3. Refine topic. Test problem thrust with major professor, committee members, and other relevant persons.
4. Prepare formal research proposal. (Example formats are attached.) Consult library proposal preparation references for extended discussion.
5. Test proposal ideas during independent discussions with major professor and committee members.
6. Call committee into session for formal presentation of research proposal. The formal proposal presentation is open to all Geosciences students and faculty. The committee's evaluation of the proposal is open only to the presenting student, the major professor, and the committee members.
7. File copies of the approved proposal with members of the committee and departmental office.
8. As work progresses, keep in contact with major professor and committee. Submit material for review as prepared.

Revised 1/2006

## DEPARTMENT OF GEOSCIENCES GEOGRAPHY PROGRAM

### VI. DOCTORAL FOREIGN LANGUAGE REQUIREMENT AND EXAMINATION

It is important for a doctoral student to be exposed to the breadth of human endeavor, and therefore be able to examine valid scholarly work being done by people other than intrinsic English-speakers. Because the Ph.D. is a degree of advanced, original research, the department requires that all Ph.D. programs in geography must include one foreign language other than that student's native language. For some students, knowledge of a computer programming language may be highly recommended as well, but it is not required. However, the department will not accept a substitute for the foreign language requirement, and passing the language examination is prerequisite to beginning the Comprehensive Preliminary Examination.

#### Level of Comprehension

For all doctoral students in geography, the minimal foreign language requirement is the capability to use geographical periodicals and references in the second language. The student is expected to demonstrate comprehension of basic grammar and adequate vocabulary such that references can be used with reasonable facility.

#### The Language Examination

The student may meet the foreign language requirement by any one of the following means:

1. The requirement is automatically satisfied when English is the second language of the student. This means that a student fluent in his or her native language and required to take the TOEFL test for admission to Oregon State University can be exempted from further certification, at the discretion of his/her graduate committee.
2. Students completing the second year of college level language training can be certified as meeting the language requirement by his/her graduate committee.
3. Students with a language proficiency developed from experience, private study, or non-academic training may satisfy the foreign language requirement by passing a reading test with an approved examiner. This procedure is designed as a convenient way to certify proficiency. It is not designed to accommodate a continual re-testing of marginal language skills. It will be given no more than twice for each student. A student who fails must be certified by alternative procedure in sections 2 or 4. Some of the approved examiners in this department are:
  - For French, Dr. Julia Jones
  - For Spanish, Dr. Julia Jones
  - For Swahili, Dr. Gordon Matzke (emeritus)
  - For German, Dr. Keith Muckleston (emeritus)
  - For Hebrew, Dr. Aaron Wolf
  - For Italian, Dr. Julia Jones

Individual graduate committees may make alternative arrangements to test other languages, in the absence of designated departmental examiners.

One hour is the suggested examination length. The examiner will select suitable portions of a geography journal or reference material for written translation (usually a total of two pages). The student may use a dictionary. The translation is to be accomplished in a reasonable time (not more than one hour), and to correctly express the context of the assigned paragraphs. The examiner may ask questions concerning the language structure and grammar in the translated portions, to assure that the student has reasonable comprehension.

Following a successful examination, the examiner will complete the appropriate form, to be filed with the student's records.

4. The language requirement may be satisfied by passing the Foreign Language Achievement Test developed and provided by Brigham Young University ([flats.byu.edu](http://flats.byu.edu)). Additional information and forms for satisfying the language requirement may also be obtained from the Graduate School (e.g., [oregonstate.edu/Dept/grad\\_school/phpforms/phd\\_fl\\_req.php](http://oregonstate.edu/Dept/grad_school/phpforms/phd_fl_req.php)).

## DEPARTMENT OF GEOSCIENCES GEOGRAPHY PROGRAM

### VII. SUGGESTED STRUCTURE FOR A DOCTORAL RESEARCH PROPOSAL

In order to facilitate discussion of the student's research plans, the candidate is asked to prepare a research proposal. For Ph.D. students, the proposal must be presented and discussed in a formal proposal meeting attended by the student's graduate committee. Outlines commonly include the following sections. The lengths listed pertain to double-spaced text and are guidelines, not rigid requirements. Two formats are given below, but major professors may suggest other styles.

#### RESEARCH PROPOSAL - FORMAT #1

1. Literature review and statement of problem - 2 to 6 pages;
2. Objectives of the proposed study - 1/4 to 1/2 page;
3. Methods of procedure - 2 to 5 pages, presented systematically for each objective with emphasis on design, sampling methods, and statistical analysis;
4. Significance of the proposed research - 1 to 2 pages;
5. Literature cited;
6. Time table of significant events in the research project (1/2 to 1 page). This should include: (a) when the study or data gathering was or will be initiated; (b) duration of the data gathering (including all field seasons for field projects); (c) when the data will be analyzed; (d) when the dissertation will be written; and (e) the expected date for completion of the degree requirements.
7. A proposed budget should be attached if funds are needed to undertake the research.

#### RESEARCH PROPOSAL - FORMAT #2

**TITLE:** This should clearly indicate the type of study proposed.

**INTRODUCTION:** This should be a several paragraph statement introducing the general subject.

e.g., The controversy over "old growth" is a recent development in the Pacific Northwest. Prior to the early 1980's, environmental activists focused their energies on the creation and expansion of the Wilderness Preservation System. When resistance to additional wilderness areas stiffened, it became clear to many that the wilderness system was likely to leave a large portion of the virgin timber resources unprotected from the threat of harvest. The debate shifted from wilderness preservation to "old growth" preservation. In support of the claims of environmentalists, scientific research produced evidence which seemed to justify the setting aside of "old growth" as a species protection measure.

In particular, it was demonstrated that the Northern Spotted Owl showed a particular affinity to old growth stands. As a result of this, the owl has been designated as an indicator species pointing to the viability of old growth communities. Etc., etc.

**JUSTIFICATION:** This is the place where the focal problem area is identified. It should answer the general question: "Where do we need increased understanding?"

e.g. Since the fate of old growth has been tied so closely to the fate of the spotted owl, it is important that the linkage between the two is based on the best science available. The questions recently raised by owl sightings in second growth timber are disturbing to outside observers since they indicate that old growth may not be essential to the survival of the owls. This research is designed to reexamine the linkage between old growth and owls.

**OBJECTIVES:** The objectives bring the proposal down to the specific things you intend to accomplish with the proposed research. They should be short statements that are clear and to the point.

- e.g.
1. To construct a history of the emergence of old growth as a resource controversy in the Pacific Northwest.
  2. To identify.....
  3. To determine.....
  4. To estimate.....
  5. To construct.....
  6. To develop.....
  7. To test.....

**PROCEDURES:** Each objective identified above should be linked to the strategy you intend to use in pursuing the objective.

Objective 1:

e.g. The published literature will be searched using a system described by Bigfoot (1901) to identify key actors in the scientific, environmental, and governmental communities. As the search proceeds, a cumulative contacts graph will be constructed as described by Susie (1875). When the frequency of new names per article searched approaches the asymptotic limit, the name search will be stopped.

Using the names generated from the published literature, a sample population of names will be drawn using the stratified Wilson method as described by Wilson (1987).

The individuals in the sampled population will be interviewed.....

Objective 2: Etc., etc.

Objective 3: Etc., etc.

**SUMMARY STATEMENT:** A few paragraphs, which bring together the expected significance of the findings is a desirable way to bring to the reader a sense of the importance of the proposed work. If you don't know why it is important, will anyone else?

**TIME LINE FOR WORK:** This should give the schedule of work you propose to undertake. Many students have little concept of the time involved in doing research. The time line helps advisors judge if the research work can be completed on schedule.

If you systematically organize your proposal in this fashion, then it is easy to approve parts of it and to identify parts which are in need of further work.

**BUDGET:** By providing an estimate of costs, students certify their understanding of the financial demands of the proposed undertaking.

# DEPARTMENT OF GEOSCIENCES GEOGRAPHY PROGRAM

## VIII. APPROVAL FORM - GEOGRAPHY PH.D. DISSERTATION PROPOSAL DEFENSE

\_\_\_\_\_  
(date)

TO: Director, Geography Program  
Department of Geosciences  
Oregon State University

\_\_\_\_\_ has successfully defended his/her dissertation proposal  
(student name)

entitled \_\_\_\_\_

\_\_\_\_\_

and may proceed to take his/her Ph.D. comprehensive exam, if the foreign language requirement has been met.  
A copy of the proposal is attached.

\_\_\_\_\_ Major Professor

\_\_\_\_\_ Committee Member

\_\_\_\_\_ Committee Member

\_\_\_\_\_ Committee Member

\_\_\_\_\_ Committee Member

## DEPARTMENT OF GEOSCIENCES GEOGRAPHY PROGRAM

### IX. DOCTORAL COMPREHENSIVE EXAMINATION

The comprehensive examination follows the coursework included on the student's Graduate Doctoral Program, the completion of the foreign language requirement, and the dissertation proposal defense. Normally a delay of 2 months is required to allow the student time for reading, review, and reflection. Students are encouraged to visit with members of their committee for suggestions and assistance during this period. Some major professors hold discussion sessions to help their students prepare.

The comprehensive examination consists of three phases:

**Phase I** is a written examination which has the intention of testing: (1) the student's philosophical understanding of the discipline and particular specialization; and (2) ability to handle questions or problems thoughtfully and with particular concern for conceptual structures. Phase I normally consists of 5 to 7 questions prepared by members of the committee, and selected and assembled by the major professor. The student is given 5 hours to deliver typed copies of responses to members of the committee for evaluation. Normally within 3 days the major professor can give the student the committee evaluation.

**Phase II** has the purpose of testing the student's ability to define and design a researchable problem within the specialization field. The problem area is set by the major professor, who is also the principal evaluator. The problem assigned may involve either field or library research, and may stress either a proposal for an extended effort or a small scale problem for which research and reporting can be completed in the allotted time. The major professor can choose a format of either 2 days (48 hours) or 3 days (72 hours) for Phase II. Typed copies of a specified report are delivered to the committee at the end of the specified time period.

**Phase III** is the formal oral examination by the full committee, including the Graduate Council Representative. Questions may range across the student's background, with the time equally divided among the examiners. This 2-hour examination must be scheduled with the Graduate School at least 1 week in advance (2 weeks is even better). At least 1 complete academic term must elapse between the preliminary oral exam and final oral dissertation defense.

After successfully completing the oral examination, the student is advanced to candidacy for the Ph.D. degree. The student must then complete and defend a Ph.D. dissertation within 5 years in order to be awarded the degree.

DEPARTMENT OF GEOSCIENCES - GEOGRAPHY PROGRAM

**APPENDIX 1. CHECKLIST FOR GEOGRAPHY MASTER'S DEGREE**

**1. Background Requirements.** Does the audit of this student's record specify the need to take any of the following minimum background coursework?

- Physical Geography (GEO 201)
- Statistics (ST 351)
- Natural Resources/Environmental Conservation (GEO 300)
- Cartography (GEO 360)

If the audit specifies any of these courses, they are to be taken for undergraduate credit early in the program. They may not be audited, or taken for graduate credit. They must be taken on a graded basis (not S/U or P/N).

**2. Exit Requirements.** Does the audit of this student's record specify the need to take any of the following exit requirements coursework?

- Field work (GEO 548 562, 595, or advisor approved substitute)
- Physical Geography (GEO 531, 532, 539, 546, 582, 583, or advisor approved substitute)
- Resource Geography (GEO 520, 521, 523, 524, 525, 526, 529, 551, 552, 553, or advisor approved substitute)
- Remote Sensing/Image Processing (GEO 544, 566, or advisor approved substitute)
- Geographic Information Systems (GEO 565, 580, or advisor approved substitute)
- Statistics (ST 511, or advisor approved substitute, such as GEO 541)

Although students may take undergraduate courses to meet exit requirements, this could inordinately delay completion of the M.S. degree. The courses listed above may be used to simultaneously meet exit requirements and graduate program requirements.

**3. Program Requirements.** The total program must have at least 45 graduate course hours (48 for non-thesis students). The combination of exit, major, and minor program requirements must list at least 30 graduate hours in geography, including the common set of core classes listed below:

- GEO 501 Research Paper (3 credits) or  GEO 503 Thesis (6 credits)
- GEO 507 Seminar: Geographic Research (1 credit) [Repeat 3 times; one must be taken concurrently with GEO 515]
- GEO 515 History and Philosophy of Geography (3 credits)
- GEO 518 Geoscience Communication (3 credits)
- GEO 548 Field Research in Geomorphology & Landscape Ecology (3 credits) (GEO 534 is also highly recommended, but is not required)
- Professional Experiences (2)
  - Research Proposal  Presentation  Grant Proposal

Every student must complete a major program of study including at least 27 credits. The major areas of study are geographic information science, physical geography, or resource geography. The specific courses selected must meet the approval of the major professor and program director.

A minor program of study is NOT required. However, if a student desires a geography minor, it must consist of at least 12 credits. Geography minors include geographic information science, physical geography, or resource geography. Many other minors are available on the OSU campus, including an integrated minor that combines fields around a student-designated theme. These minors must consist of at least 15 credits. The following list is helpful in guiding the selection of geography courses for inclusion in major and minor programs:

**Internship**

GEO 510 Internship credits (3) may be used in the graduate program when a student has chosen the non-thesis option.

**Geographic Information Science**

GEO 541+ Spatial Variation in Ecology & Earth Science  
 GEO 544 Remote Sensing  
 GEO 545 Computer-Assisted Cartography  
 GEO 560 Multimedia Cartography  
 GEO 565 Geographic Information Systems & Science  
 GEO 566 Digital Image Processing  
 GEO 569 Topics in Geographic Techniques  
 GEO 580+ Advanced GIS Applications in the Geosciences  
 GEO 5xx+ Advanced Remote Sensing & Digital Image Processing (new course number forthcoming in 2006 at the time of this writing)

**Resource Geography**

GEO 520 Geography of Resource Use  
 GEO 521 Humans and Their Wildlife Environment  
 GEO 522 Reconstructing Historical Landscapes  
 GEO 523 Land Use  
 GEO 524 Water Resources Geography  
 GEO 525 Water Resources Management in the U.S.  
 GEO 526 Third-World Resource Development  
 GEO 529 Topics in Resource Geography  
 GEO 552 Principles and Practices of Rural and Resource Planning  
 GEO 559 Topics in Land Use

**Physical Geography**

GEO 531 Applied Climatology  
 GEO 532 Applied Geomorphology  
 GEO 534 Introduction to Oregon Geography  
 GEO 539 Topics in Physical Geography  
 GEO 546+ Advanced Landscape Ecology  
 GEO 548+ Field Research in Geomorphology and Landscape Ecology  
 GEO 581+ Glacial Geology  
 GEO 582+ Geomorphology of Forests and Streams  
 GEO 583+ Snow Hydrology  
 GEO 593 Topics in Quaternary Geology

+ = 500-level-only course. Also at a 500-level only are GEO 515 and 518. In other departments, related 500-level-only courses are FOR 558, 561, 564, FS 520, 521, 523, MRM 525, OC 678, ST 565, and CS 549, 553. **You may also petition the grad school to accept a 400/500 course as 500-level-only if you include the syllabus of the course with a clear statement therein of learning outcomes for graduate students.**

Revised 5/2006

**DEPARTMENT OF GEOSCIENCES - GEOGRAPHY PROGRAM****APPENDIX 2. GRADUATE SCHOOL FORMS AND HELPFUL TIPS**

Graduate Program and all other necessary forms are available on the web at [oregonstate.edu/dept/grad\\_school/](http://oregonstate.edu/dept/grad_school/) and click on “Graduate Forms”

The OSU Graduate School Survival Guide, a step-by-step guide to processing through your doctoral degree can be found at [oregonstate.edu/Dept/grad\\_school/current/success.html](http://oregonstate.edu/Dept/grad_school/current/success.html)

OSU Graduate diploma and commencement deadlines:  
[oregonstate.edu/Dept/grad\\_school/current/deadlines.html](http://oregonstate.edu/Dept/grad_school/current/deadlines.html)

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**Tips from Bruce Rettig, Associate Dean of the Graduate School:**

Please let me alert you to some problems that your students may be able to avoid.

*Effective Fall 2005, all graduate student programs of study submitted to the Graduate School must consist of, at a minimum, 50% graduate stand-alone courses.*

First, after a slash (4XX/5XX) course has been completed and the grades assigned, I do not approve petitions to drop a 4XX course and add the related 5XX course. But, I will endorse petitions to the Academic Requirements Committee to drop the 4XX and add the 5XX during the term. Please ask your instructors of slash courses to confirm that all students in the 4XX course wish to apply the course only to undergraduate degree requirements. If they wish to use the course at some point on a graduate program of study, they should be enrolled in the 5XX course (carrying out the instructor’s designed strategies to help the students meet the graduate level learning objectives).

Second, students often do not understand the concept of billable hours. The deadline for dropping a course has passed. If a student petitions to drop a course now, it will be treated as a withdrawal. Courses recorded as audits or withdrawals are billable hours. If your students withdraw from a course, advise them to be very careful about how many credits they add. For example, consider a student enrolled for 6 credits of (two) courses plus 10 credits of dissertation research for a total enrollment of 16 credits. If the student chooses to withdraw from one of the courses, the billable hours remain 16 (13 credits of registered courses plus the 3 credits of W). If the student then adds three credits, the registration returns to 16 credits, but the student is billed for 19 credits. This is beyond the 9-16 credit plateau with one tuition rate and will result in additional billing. How much they will be responsible for (remember that tuition remission only covers 12-16 credits) varies during the term, but there will be some cost to exceeding 16 billable hours. Please share this information with your advisors so they may proceed cautiously in advising students about strategies to maintain registration during a term.

Additional information in the catalog on doctoral degree requirements can be found at

<http://catalog.oregonstate.edu/ChapterDetail.aspx?key=40>

Information that applies to both master’s and doctoral degrees can be found at

<http://catalog.oregonstate.edu/ChapterDetail.aspx?key=38>

The Graduate School will be pleased to answer questions on these or any other degree requirements. Please call (541) 737-4881, stop by the Graduate School office on the third floor of Kerr Administration Building, or email us at [graduate.school@oregonstate.edu](mailto:graduate.school@oregonstate.edu).

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**The OSU Center for Writing and Learning**

- ◆ Writing assistants are available to help with brainstorming, organization, grammar and usage, and all aspects of writing
- ◆ Online writing lab for assessment of writing problems (24-48 hour turnaround)

Waldo 123

<http://cwl.oregonstate.edu/>

737-5640

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**The OSU Academic Success Center**

Assistance with:

- ◆ Goal setting
- ◆ Study skills
- ◆ Listening habits
- ◆ Time management
- ◆ Wellness

101 Waldo Hall

<http://success.oregonstate.edu/>

737-2272

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**International Programs, International Student & Faculty Services**

Information for students on F-1 or J-1 Visas

444 Snell Hall

<http://oregonstate.edu/international/>

737-3006

Revised 8/2006

**DEPARTMENT OF GEOSCIENCES -- GEOGRAPHY PROGRAM****APPENDIX 3. REGISTRATION INFORMATION FOR INTERNATIONAL STUDENTS**

Students on F-1 or J-1 visas must be enrolled for and complete a minimum of 9 credits each term during the academic year to satisfy immigration requirements. All graduate students on an assistantship (GTA or GRA) need to maintain at least 12 state-supported credits. Audit or OSU Extended Campus courses do not count toward full-time enrollment for OSU graduate students.

Students must receive written approval from International Student and Faculty Services prior to registering for less than a full-course of study or dropping below a full-course of study. One vacation period is allowed during the academic year, usually taken summer term. See Registration Requirements for Graduate International Students on their website <http://oregonstate.edu/international/>.

During the final phase of your degree, you may petition to register for fewer than 9 credit hours if you have completed all required coursework and all credits listed on your specific Graduate Program of Study. If approved, you will need to register for a minimum of 3 credits. Check with International Programs in 444 Snell Hall, OSU campus, 541-737-3006, for more information.

Revised 8/2006