

Graduate Group in Geography

UC Davis Graduate Guide 2013-2014

Chairperson:

Chris Benner
2333 Hart Hall
(530) 754-8799
ccbenner@ucdavis.edu

Graduate Advisors:

People, Place and Region

Chris Benner
2333 Hart Hall
(530) 754-8799
ccbenner@ucdavis.edu

Nature and Society

Ryan Galt
2429 Hart Hall
(530) 754-8776
regalt@ucdavis.edu

Environmental Sciences

Robert Hijmans
2001 Wickson
(530) 752-6555
rhijmans@ucdavis.edu

Methods, Models and GIS Science

Jim Quinn
2120 Wickson
(530) 752-8027
jfquinn@ucdavis.edu

Graduate Program Coordinator:

Carrie Armstrong-Ruport
133 Hunt Hall
(530) 752-4119
caruport@ucdavis.edu

<http://geography.ucdavis.edu>

Table of Contents

UC Davis	1
Orientation for New Students	3
Welcome	3
Communications	3
Major Professor	3
Paper Work	4
Graduate Advisors.....	4
Office Space.....	7
Computing Laboratories.....	7
Entering the Program from outside Geography	7
Graduate Student Association and Geographical Education Club	7
GGG Executive Committee	8
Business Meetings of the GGG.....	8
GGG Seminars and Field Studies Courses	8
Geography Graduate Group E-Mail List.....	9
For Graduate Students	9
What is Geography as Practiced at UC Davis?	10
Designated Emphases for the Ph.D.	11
Geography Degree Requirements	12
Deficiencies and Preparatory Courses,.....	12
(For students without an undergraduate degree in geography)	12
Requirements for a M.A. in Geography	14
Requirements for a Ph.D. in Geography.....	16
Appendices and Forms	20
Preparation for Geography Graduate Studies for Students without a Geography Undergraduate Degree.....	21
GEOGRAPHY GRADUATE GROUP	22
Program of Study for Master’s Degree (MA).....	22
GEOGRAPHY GRADUATE GROUP	24
Program of Study for Doctoral Degree (Ph.D.)	24
Geographic Depth Courses in Environmental Sciences (Physical Geography)	25
Geographic Depth Courses in Methods, Models, and GIScience	26
Geographic Depth Courses in Nature & Society.....	27
Geographic Depth Courses - People, Place, and Region (Human Geography)	28
Ph.D. Qualifying Exam Format.....	29

Orientation for New Students

Welcome

Welcome to the Graduate Group in Geography (GGG)! The group consists of some 68 graduate students and 60 faculty members and 29 emeriti faculty from across the UC Davis campus. In terms of the number and diversity of affiliated faculty, we are the nation's largest geography graduate program. As such, the group supports a wide range of geographic scholarship.

We are fortunate to be housed administratively by the Landscape Architecture Program in the Department of Human Ecology, with the Group's office located in 133 Hunt Hall, and student office with mailboxes in 158 Hunt Hall.

We all look forward to helping you achieve your scholarly and academic objectives. Welcome and best wishes for a productive year.

Communications

The group maintains several means of distributing information. These include:

E-mail lists. An e-mail list is available to disseminate information to the group's graduate students. Please subscribe to this list and keep your address current, as described on page 9. (An e-mail list is also available for the faculty.)

Website. The group website is <http://geography.ucdavis.edu>

Mailboxes. Individual mailboxes are available for GGG students in 158 Hunt Hall. You will need to check out a key for 158 Hunt Hall from the LDA Program Representative located in 131 Hunt Hall. A \$10 deposit for each key is required. The program coordinator oversees the mailboxes.

GGG Office Hours. GGG office hours will be posted on the door of 133 Hunt Hall. Paperwork also may be left in the graduate program coordinator's mailbox in Room 131 Hunt Hall during normal business hours.

Major Professor

To be accepted into an M.A. or Ph.D. degree program in the Geography Graduate Group, a student must have a Major Professor that has agreed to work with them. You should have been assigned a Major Professor when you were admitted to the program, but you are also free to change Major Professors at any time. The Major Professor must be a member of the Graduate Group in Geography and must agree to serve in this capacity. It is possible to switch major professors. The Graduate Advisor and Graduate Staff Assistant in the Geography Graduate Group should be informed of any changes as soon as possible. For advice on finding a Major Professor, talk to the Chairperson, Graduate Advisors, and current students of the Geography Graduate Group.

A student's Major Professor serves as a mentor and is a primary resource for advising and scholarly information on research projects and sources of external funding. The Major Professor's home department is responsible for providing the graduate student office and laboratory space and support, as available. Major Professors will advise students on courses to formulate a program best suited to the individual student's academic research and professional needs. The Major Professor serves as chairperson of the dissertation/thesis/master's exam committee. He/she, along with the student and their Committee, recommend to the Graduate Advisor when the student is prepared to take the qualifying/oral examination. He/she should guide the student on exam preparation and the preparation of their dissertation proposal for the Ph.D. qualifying examination. For students without prior academic degrees in Geography, the Major Professor consults with the student to advise the Graduate Advisors on a preparatory program of courses in geographic theory and methods.

Though the Major Professor plays the lead role in providing guidance on research projects, he/she may not be aware of the latest Graduate Studies and GGG requirements. Therefore, the student should consult with the Graduate Advisors on a regular basis and report on his/her academic progress.

Paper Work

The Graduate Program Coordinator manages almost all paperwork related to the Graduate Group. The Graduate Advisors, Professors **Chris Benner**, **Ryan Galt**, **Robert Hijmans** and **Jim Quinn**, need to sign most student forms. **You can make arrangements to speak with Chris, Ryan, Robert or Jim** at any time. If all you need is a signature, you can also leave it with the Graduate Program Coordinator, **Carrie Armstrong-Ruport**, in 133 Hunt Hall, or in **Carrie's** mailbox in 131 Hunt Hall and it will be taken care of forthwith.

Graduate Advisors

Graduate Advisors are nominated by the Chairperson of the Geography Graduate Group and appointed by the Dean of Graduate Studies to serve in matters affecting graduate students in their academic program. The Graduate Advisor's signature is the only signature officially recognized by Graduate Studies on a variety of forms and petitions used by graduate students.

In general, Graduate Advisors act as the student's first source of academic program information and provide assistance with the requirements of the program. There is one graduate advisor for each of the Areas of Geographic Depth in the program, and you should work primarily with the Graduate Advisor within your area of interest. Students should meet with their Graduate Advisor on a regular basis and keep him/her up to date on progress. In particular, the Graduate Advisors are responsible for:

- A. Development of academic study plans with the student.
- B. Reviewing and acting on requests by graduate students to drop or add courses or to take courses on a Satisfactory/Unsatisfactory basis.
- C. Reviewing and approving petitions for advancement to candidacy for the Ph.D. degree and making recommendations for the composition of committees for M.A. theses and exams, doctoral dissertations, or qualifying examinations.

- D. Periodic review of the student's progress towards degree objectives, and in particular, the filing of an annual report with Graduate Studies concerning each student's progress toward completion of degree requirements.
- E. The Graduate Advisor is also responsible for the approval of Planned Educational Leave (PELP).
- F. For students without prior academic degrees in Geography, the Graduate Advisor is responsible for approving a preparatory program of courses in geographic theory and methods, in consultation with the student and Major Professor.

Financial Support

It is the student's responsibility to obtain needed funding. Many sources of financial support are available for students:

Teaching Assistant Positions. Teaching assistant (TA) positions are often available for classes taught by GGG faculty members through their home departments. The GGG Graduate Program Coordinator has TA applications for the group's home department: Human Ecology. Graduate students may apply for TA positions in any department on campus. Please contact faculty in charge of teaching particular courses or the management officer of each department to learn of teaching assistant opportunities. Apply early, preferably between December and May the prior year. Application forms for Teaching Assistantships should be submitted to the Department or Graduate Group offering the course on which the student wishes to assist. TA positions of 25% or greater time carry an in-state fee waiver.

Graduate Student Researcher. Individual faculty members fund graduate student researcher (GSR) positions. Faculty in your area of interest should be contacted to discover opportunities. GSR positions of 25% or greater time carry an in-state tuition waiver and non-resident supplemental tuition waiver.

Work-Study. The Geography Graduate Group has a limited number of 25% time work-study positions each year. Eligibility for these grants is related to individual income. Work-study grants are used to match funding from other employment on the campus. A 25% work-study GSR appointment includes full remission of in-state tuition for the quarter the appointment is held. Deadlines and procedures for applying for work-study are available from the Graduate Program Coordinator. You must file a FAFSA by March 1 each year to determine eligibility.

Geography Graduate Group Fellowships (aka GGG Block Grants). Graduate Studies allocates the GGG Fellowship awards to help fund students. The GGG issues a call for Geography Graduate Group Fellowships (aka Block Grants) in the fall quarter, and the Awards Committee makes recommendations to the Chairperson on these awards. Awards may be used towards fees, non-resident tuition or stipends.

Other On-Campus. Other employment on campus may be available in technical and service capacities. See the Student Employment Center for more information at: <http://jobs.ucdavis.edu/>

UC Davis and External Fellowships. The University offers several internal fellowships for new and continuing students. Fellowships are allocated on a competitive basis. Fellowship deadlines and applications are available from the Graduate Staff Assistant. External fellowships are also available through federal agencies and private organizations with Graduate Studies providing information on many of these.

Off-Campus. Off-campus employment opportunities exist in many areas of geography. The opportunities can often be discovered through the Internship and Career Center (2nd floor, South Hall) or through directly contacting agencies and firms doing work of interest to you. Jobs also frequently are sent to our email list for distribution.

Research Funding. Geography Graduate students have been very successful in obtaining funding for their research projects from various private, state and federal agencies. Several funding sources are also available at UCD and UC system-wide. Further information may be found on our Graduate Studies and Office of Research campus websites. See <http://geography.ucdavis.edu/handbook/financial-assistance> and <http://www.gradstudies.ucdavis.edu/ssupport/>

Teaching Assistant and Graduate Student Researcher positions afford excellent opportunities to gain experience in areas of intrinsic importance to your graduate education and to receive financial support at the same time. Information and application materials for TAs are available from the department in which you wish to teach. Contact the faculty directly about the availability of GSR positions. A minimum 3.0 cumulative GPA is required to hold an academic appointment. GSR and TA appointments at 25% and above provide full remission of in-state fees for the quarter the appointment is held. This policy is reviewed for renewal each year. Nonresident (NRT) remission is provided to all eligible Graduate Student Researchers (GSRs) employed by the University of California, Davis.

Financial Aid, which is only available to U.S. citizens, permanent residents or immigrants, is awarded on the basis of demonstrated financial need, and is administered by the Financial Aid Office. Federal financial aid includes student loans, grants, and work-study funding. Contact your graduate program regarding the availability of work-study funding. All applicants (US citizens, permanent residents, and immigrants) are required to apply for financial aid. You may apply for financial aid before you have been admitted. As noted above, it is strongly suggested that you file the FAFSA by the priority processing date of March 1. A full-time counselor for graduate financial assistance is available for appointments and scheduled drop-in hours in the Financial Aid Office.

Fellowships, graduate scholarships, and GGG Fellowships (aka block grant awards) are awarded primarily on the basis of scholarship and the promise of outstanding academic and professional achievement. Consideration is given to the extent and quality of previous undergraduate and graduate work, evidence of ability in research or other creative accomplishment, evidence of intellectual capacity, and promise of productive scholarship. Graduate Record Examination (GRE) scores, undergraduate and graduate grade point averages, academic transcripts, statement of purpose, letters of recommendation, and other documentation such as publications or awards are used in this evaluation.

The minimum cumulative undergraduate or graduate grade point average required for a living allowance, in-state fee award, or nonresident tuition fellowship is 3.0 (A=4.00).

Financial need or the availability of other sources of support in your graduate program is not relevant to the evaluation of academic merit, but may be an additional criterion for some fellowships. Students must establish eligibility for need-based awards by filing a FAFSA with the Federal Student Aid Program by the March 1 deadline. To file the FAFSA online, go to <http://www.fafsa.ed.gov>.

Office Space

The primary office space for GGG students is provided by the department of the Major Professor (as available) and for TA or GSR positions, by the student's employer on campus. A phone, fax, Xerox machine, and computer may or may not be available. The GGG also has been assigned 158 Hunt Hall as a group office and mailroom for our students. If you use this space as your office, be sure to be considerate of others and their need for space and to personally secure any valuables you have.

Computing Laboratories

The GGG has a basic computer laboratory for our students (with PCs, Macintoshes, a printer, and internet access over the campus network) in 158 Hunt Hall. These computers are password protected. Please see the GGG Program Coordinator for the password. The campus also has many open general-purpose labs and special purpose laboratories (see <http://studentcomputing.ucdavis.edu/>). If you have an assigned office from your major professor and home department, you may be able to hook a departmental or your personal computer up to the campus high-speed network in that room, or access the computer internet wirelessly.

Entering the Program from outside Geography

For students entering the graduate program without an undergraduate or prior graduate degree in geography, it will be necessary to evaluate your prior coursework and most likely take additional preparatory course-work in geography. This preparatory work must be agreed upon early in your program in consultation with your Major Professor and Graduate Advisor. A form for this purpose appears on page 17. Students wishing to enter the Geography Graduate Group from other graduate programs on campus should contact a Graduate Advisor.

Graduate Student Association and Geographical Education Club

The students select three representatives who represent the group in the UC Davis Graduate Student Association (GSA). The GSA is a forum for graduate student matters and activities. The students organize various informal seminars and activities during the year. Also available to geography students is the Geographical Education Club, and two student groups: SAGE and GLOBAL.

GGG Executive Committee

The GGG Executive Committee meets quarterly (and sometimes more frequently) to conduct the work of the group in regard to curricula, awards, financial support, activities, and other matters. Two graduate students serve as elected members of the Executive Committee, along with the Chairperson, the Vice-Chairperson, the four Graduate Advisors, three Members-At-Large, and the Graduate Program Coordinator. Serving on this committee is a good way to learn more about how the University works! A list of who is currently serving on the Executive Committee is available here: <http://geography.ucdavis.edu/content/geography-graduate-group-members>

Business Meetings of the GGG

The GGG holds two business meetings of the full group (faculty, staff, students and friends) in the middle of the fall quarter and near the end of the spring quarter. These are both business and social functions and are very enjoyable events.

GGG Seminars and Field Studies Courses

GEO 280 Field Studies in Geography (3 units). May be repeated two times for credit. Students help organize our GEO 280 field studies course that is held in spring quarter. This course has a faculty coordinator.

GEO 290 Seminar (1-3 units)

GEO 291 Seminar in Cultural Geography (4 units)

GEO 295 Seminar in Urban Geography (4 units)

GEO 297 Geography Graduate Group Seminar (2 units)

GGG students help organize our GEO 297 weekly seminar series during fall, winter and spring quarters. Students are required to take GEO 297 two times. This seminar series has a faculty coordinator each quarter. Topics are typically selected late in spring quarter or early in fall quarter. Seminar topics have included history of California's landscapes, tourism, zoogeography, watershed science, the geography of food, and careers in geography.

HELP!

If you have any questions please let us know in person, by telephone, or by e-mail. We will do our best to help as fast as we can. Many questions regarding Campus graduate policies can be answered by consulting the Graduate Student Guide, which is published over the web ONLY. The web address is http://gradstudies.ucdavis.edu/students/handbook/GS201_GraduateStudentGuide.pdf

Geography Graduate Group E-Mail List For Graduate Students

1. The graduate group has established the following e-mail list for administrative purposes and use among the graduate students. Please subscribe so that you can be informed of opportunities and developments with the Geography Graduate Group.

<u>List Name</u>	<u>Description</u>
Geography-Grad	A moderated list of GGG graduate students and alumni

To subscribe to the list, send an e-mail message to:
Carrie Armstrong-Ruport (caruport@ucdavis.edu)

While the list is moderated, we encourage use of the list to inform other students of social and academic events and opportunities related to the Graduate Group. (Graduate Studies has asked that graduate student lists be moderated.) To send mail to everyone on the list, merely e-mail the message to: caruport@ucdavis.edu who will forward it to the Geography Graduate Student list.

The list will be used to disseminate such things as:

- 1) Opportunities for fellowships, teaching assistantships, and graduate-level jobs,
 - 2) Reminders of deadlines for applications for fellowships, candidacy, etc.,
 - 3) Announcements of new courses, course schedules and changes in course scheduling,
 - 4) Social occasions,
 - 5) Whatever other reasonable uses suggested by our graduate students, faculty and staff.
- To make the list most useful, we suggest you subscribe early.

2. The GGG has also established an ucdavis.edu email list that you can directly post messages to. The GGG Program Coordinator (Carrie) “subscribes” all current students to this list at the beginning of the fall quarter each year, so if you do not want to be included, please let her know. The list is geographystudent@ucdavis.edu.

What is Geography as Practiced at UC Davis?

The discipline of geography focuses on landscape patterns and the processes that shape them and is characterized by a distinct set of perspectives (place-based understanding, spatial interactions, and scale dependence) and methods of spatial representation and analysis. Geography focuses on the organization and character of the surface of the earth, and interactions between biophysical and human processes at the surface of the earth. As a cross-cutting discipline, geographers often attempt to transcend the boundaries traditionally separating the natural sciences, engineering, social sciences and humanities in order to provide a broad-based analysis of selected phenomena. Geography is an appropriate home for study of many critical issues facing society, including global climatic change, environmental degradation, biodiversity loss, land-use change, globalization of the economy, effects of globalization on local places and peoples, and impacts of the technological revolution.

Training in geography at UC Davis is offered by an interdepartmental and interdisciplinary group of faculty who are interested in the relationship between humans and the environment. The group's membership includes faculty in the colleges of Agricultural and Environmental Science, Biological Sciences, Engineering, Law, Letters and Science, and Veterinary Medicine. Its members include faculty trained in geography as well as those trained in sister disciplines whose work relates to geographic theory and methods. The GGG is housed in the Department of Human Ecology of the College of Agricultural and Environmental Sciences. The strengths of the campus and its faculty enable the program to focus on several areas of emphasis in geography where faculty expertise and student interest is the greatest.

The goal of the GGG is to provide basic training in geography and specialized training. To meet this goal, the training of each student involves two essential steps:

1. Core courses (GEO 200AN, 200BN, 200CN, 200DN and 200E) and seminars (GEO 297) in the discipline and
2. Specialized methods and subject matter courses in one of four Areas of Geographic Depth, and as an additional option, also in one of three Specialized Areas of Study. Training in each Area of Geographic Depth and Specialized Areas of Study requires students to take a series of courses that fall within the broad subject area. Descriptions of these Areas of Emphasis and Concentrations, affiliated faculty, and their specific curricula can be found on the GGG web site: <http://geography.ucdavis.edu>. Areas of Geographic Depth generally involve faculty from several different Colleges and Departments, while Specialized Areas of Study (e.g., Global Environmental Change, Landscape Architecture and Environmental Design or Regional and Community Development) involve faculty from a single or small group of departments.

Areas of Geographic Depth

- a. Environmental Sciences
- b. Methods, Models, and Geographic Information Systems
- c. Nature and Society
- d. People, Place, and Region

Specialized Areas of Study

- a. Global Environmental Change
- b. Landscape Architecture and Environmental Design
- c. Regional and Community Development

Designated Emphases for the Ph.D.

The campus has approved approximately 10 Designated Emphases for the Ph.D. For a student to participate in one of these DE's, the graduate group must have been approved as a part of the DE. The GGG currently participates in two DE 's: Social Theory and Comparative History, and Feminist Theory and Research. Other DE's may be added. For more information see:
<http://gradstudies.ucdavis.edu/programs/de.cfm>

Geography Degree Requirements

Deficiencies and Preparatory Courses, (For students without an undergraduate degree in geography)

Students with undergraduate degrees not in geography may be required to complete additional courses or readings to overcome deficiencies in geographic theory and methods. These units are beyond the above requirements. The student's deficiencies should be determined within the first year of the program by the Graduate Advisor, in consultation with the student and another GGG faculty member, usually the student's Major Professor. Generally, a student with an undergraduate degree in a closely-allied field can expect to be required to complete the rough equivalent of a minor in Geography, consisting of one course each in human geography, physical geography, and geographic methods, plus an additional 9 units of geographic coursework.

The following courses offered at UC Davis (as well as other courses to be approved by the Graduate Advisers) are considered geography or equivalent courses:

Human Geography

- ANT 102 --- Cultural Ecology
- ANT 103 --- Indigenous People
- ANT 105 --- Societies and Culture
- ANT 119 --- World Writing Systems
- ANT 126B --- Women and Development
- CRD 140 --- Dynamics of Regional Development
- CRD 141 --- Organization of Economic Space
- CRD 142 --- Rural Change in the Industrialized World
- ESP 101 --- Human Ecology
- ESP 133 --- Cultural Ecology

Physical Geography

- ATM 110--- Weather Observation and Analysis
- ATM 115--- Hydroclimatology
- ATM 116--- Climate Change
- ATM 133--- Biometeorology
- ATM 149--- Air Pollution
- ERS 100--- Principles of Hydrologic Science
- ERS 121--- Water and Society
- ERS 141--- Role of Fire in Natural Ecosystems
- ERS 144--- Trees and Forests
- ERS 173--- Humans and Vegetation Change
- EVE 147 --- Biogeography
- GEL 115N ---Earth Science, History, and People
- GEL 134 --- Environmental Geology and Land Use Planning
- GEL 144 --- Historical Ecology
- SSC 100--- Principles of Soil Science
- SSC 118--- Soils in Land Use and the Environment
- SSC 120--- Soil Genesis, Morphology, and Classification
- WFC 155 ---Habitat Conservation and Restoration

WFC 156 --- Plant Geography
WFC 157 --- Coastal Ecosystems

Geographic Methods

ABT 180 --- Introduction to GIS
ABT 181 --- GIS Modeling
ABT 182 --- Environmental Analysis with GIS
ABT/LDA 185 --- Concepts and Methods in GIS
ERS 185 --- Aerial Photo Interpretation and Remote Sensing
ERS 186 and 186L --- Environmental Remote Sensing
ESP 123 --- Introduction to Field and Lab Methods in Ecology
GEL 136 --- Ecogeomorphology of Rivers and Streams
WFC 100---Field Methods in Wildlife Biology

Requirements for a M.A. in Geography

A. Basic Course Requirements for Masters Degrees

- 1) A total of at least 36 post-graduate units, (i.e., beyond the bachelor's degree) must be completed. (The 36 units include the 20 units in the core courses listed below.)
- 2) A series of core requirements must be completed at UC Davis. These must include:

2.a. GGG Core Courses and 297 Seminar

- GEO 200AN - Geographical Concepts (4 unit, fall quarter)
- GEO 200BN - Theory and Practice of Geography (4 units, winter quarter)
- GEO 200CN - Computational Methods in Geography (4 units, spring quarter)
- GEO 200DN - Methods of Socio-Spatial Analysis in Geography (4 units, winter quarter)
- GEO 297 - Geography Graduate Group Seminar (2 quarters)

2.b. Area of Emphasis or Concentration Core Course(s) and Methods Course(s).

Students are encouraged to take these core courses their first year in the program. The graduate advisor will not waive these core courses unless the student has transcript notation and a syllabus from a similar graduate-level course taken at another institution.

- 3) Restricted electives specified by the Area of Geographic Depth or Specialized Areas of Study.

B. M.A. Plan I, (Thesis), Additional Requirements

- 1) Of the above 36 units (A.1), at least 24 upper division (100 level) and graduate course units must be completed (exclusive of 299 units and 396 units).
- 2) A thesis must be completed, and students should enroll for units in Geography 299 while working on their thesis. This must be approved, and signed by a three-person committee. At least two members of the committee must be faculty members of the Graduate Group in Geography, with one of the persons the student's major professor.

C. M.A. Plan II, (Comprehensive Examination), Additional Requirements

- 1) Of the above 36 units (A.1), at least 32 upper division (100 level) and graduate (200-level) course units must be completed (exclusive of 299 and 396 units).
- 2) The student must pass a comprehensive examination administered by a three-person committee. The format of the exam is typically an oral examination of up to two hours, but may include a written component. At least two members of the committee, including the Chair, must be faculty members of the Graduate Group in Geography. The Chair of this committee will certify passing of the exam, which requires the unanimous vote of the committee, by letter to the Graduate Advisor.
- 3) Before sitting for the comprehensive exam the student must submit a paper of journal style and quality to the examination committee for unanimous approval. This paper should be prepared in consultation with the examination committee members.

D. Transfer Units

University regulations on transfer units towards master's degree requirements are specified in the UC Davis Catalog as follows: usually, all work for the master's degree is done in residence on the Davis campus. With the consent of the Graduate Adviser and the Dean of Graduate Studies (via petition), some work taken elsewhere may be credited toward your degree. The normal limit for such transfer credit is 6 units from another institution, or 12 concurrent units through University Extension, or up to one half of the unit requirement if the courses were taken at another UC campus providing the units were not used to satisfy requirements for another degree.

Requirements for a Ph.D. in Geography

Course, Major and Minor Requirements

1) At least 48 post-graduate course units (M.A. & Ph.D.) must be completed (exclusive of 299 and 396 units). The 48 units include the core courses listed below and 200-level courses in the major and minor specialization.

2) A series of core requirements (units) and elective courses totaling 38 units must be completed at UC Davis. These include:

A series of core requirements must be completed at UC Davis. These must include:

2.a. GGG Core Courses and 297 Seminar

GEO 200AN - Geographical Concepts (4 unit, fall quarter)

GEO 200BN - Theory and Practice of Geography (4 units, winter quarter)

GEO 200CN - Computational Methods in Geography (4 units, spring quarter)

GEO 200DN - Methods of Socio-Spatial Analysis in Geography (4 units, winter quarter)

GEO 200E – Advanced Research Design in Geography (2 Units, fall quarter the second year in the program).

GEO 297 - Geography Graduate Group Seminar (2 quarters)

2.b. Area of Geographic Depth or Specialized Area of Study Core Course(s) and Methods Course(s).

Students are encouraged to take these core courses their first year in the program. The graduate advisor will not waive these core courses unless the student has transcript notation and a syllabus from a similar graduate-level course taken at another institution.

Geographic Depth Courses - 16 units in one sub-discipline

Every student is required to take at least 16 units of Geographic Depth Courses from a pre-approved selection of courses in ONE of the four recognized sub-disciplines of Geography listed below. Students may petition for substitutions to this list, subject to approval first by their Guidance Committee and then the GGG Executive Committee:

- Environmental Sciences (see appendix IV for approved courses)
- Methods, Models, and GIScience (see appendix V for approved courses)
- Nature & Society (see appendix VI for approved courses)
- People, Place, and Region (see appendix VII approved course)

3) Restricted electives specified by the Area of Emphasis or Concentration.

4) At least 36 course units of courses must be at the graduate level (200-level) and distributed appropriately between the major and minor(s). Each minor must have at least one graduate-level course.

5) Coursework and specializations must be approved by the student's Guidance

Committee, then reviewed by the Graduate Advisor, and then approved by the Graduate Group Executive Committee.

6) Ph.D. students must be in residence for six quarters, minimum, and are expected to accrue units such that transfer units (versus courses) are not an issue. The graduate adviser can assist students who wish to transfer courses from other institutions or through UC Extension (via petition) into their major and minor specialization program.

Language Requirement

All students are encouraged to learn at least one language other than English, since knowing more than one language is a valuable asset in obtaining employment in both academic and non-academic positions.

1. Students whose dissertation research will involve either work in a non-English speaking country, or working with non-English speaking populations in predominantly English-speaking countries, are expected to demonstrate competence in an appropriate second language prior to completing their qualifying exam.
2. This competence may be demonstrated by:
 - a. Taking 15 units of a second language at UC Davis, or the equivalent in undergraduate or graduate work at another institution; or
 - b. Demonstrating commensurate competence by examination of a faculty member in the appropriate language department or within the GGG (with sufficient fluency in the language to confirm competency).
3. The Major Professor and GGG Advisor, in communication with the Qualifying Exam committee, is responsible for determining whether a student's proposed dissertation topic will require them to demonstrate competence in a second language, and should communicate this in writing by the beginning of the student's fourth term in residence.

Qualifying Examination

- 1) A Qualifying Examination must be administered by the student's Qualifying Examination Committee and passed according to the rules of Graduate Studies.
- 2) The Qualifying Examination will be both oral and written and cover general geography, the specializations (major and minor areas), and course preparation indicated in the student program of study, and the area of proposed research. Written questions, submitted by each Committee member, are to be coordinated by the Qualifying Examination Committee Chair and administered at least one week before the scheduled oral examination, with the student having at least five full working days to complete the exam, and graded by the submitting committee member before the oral Examination begins. Typically, the Chair asks each committee member to submit two questions, with the student choosing one question from each committee member to write a 1,000-1,500 word essay on. The student must prepare a written dissertation proposal under the guidance of his/her major professor, and this should be given to the committee members at least a week (but preferably one month) before the oral exam.

The oral part of the Examination last about three hours and includes examination of the dissertation proposal, any follow-up questions on the written essays, and questions on the major and minor areas. Students are encouraged to discuss the Exam's emphases with the Committee Chair and all committee members before the examination so he/she may be best prepared.

Dissertation Research

- 1) A dissertation must be completed which provides a significant contribution to the field of geography.
- 2) All members of the student's dissertation committee must approve the final dissertation. The committee must have at least 3 members, including the major professor and at least one other member of the GGG faculty.

Committees

Ph.D. Guidance Committee

Each student shall have a guidance committee whose purpose is to advise and approve the student's coursework and language requirements.

- a) The student's Guidance Committee consists of three or more faculty approving the student's coursework. These are selected by the student.
- b) At least two Guidance Committee members must be members of the Geography Graduate Group.

MA Comprehensive Examination Committee

- a) The Comprehensive Examination Committee must have three members.
- b) At least two members of the committee, including the Chair, must be faculty members of the Graduate Group in Geography.
- c) The decision on the examination must be unanimous.
- d) The Chair of the Committee will report the result of the examination by letter to the Graduate Advisor.

Ph.D. Qualifying Examination Committee

- a) The Qualifying Examination committee must have at least five members.
- b) At least two members must represent the major specialization.
- c) At least one member must represent areas of geography outside the area of the student's specialization (to ensure knowledge of the breadth of the discipline).
- d) At least three members must be Geography Graduate Group members; and one member must be from outside the Geography Graduate Group.

- e) The Chair of the Qualifying Examination committee may not chair the student's dissertation committee.
- f) The Chair of the Qualifying Examination Committee must be a Geography Graduate Group member, but unlike some other graduate groups, the dissertation chair (major professor) does typically serve on the qualifying examination committee.
- g) Members of the student's Qualifying Examination Committee are recommended by the Graduate Advisor, in consultation with the student, and appointed by the Dean of Graduate Studies.

Thesis or Dissertation Committee

- a) The Thesis or Dissertation Committee must have at least three members.
- b) The Chair of the Thesis or Dissertation Committee must be a Geography Graduate Group member.
- c) At least two members of the Thesis or Dissertation Committee must be Geography Graduate Group members.
- d) Members of a Ph.D. student's Dissertation Committee are recommended by the Graduate Advisor, in consultation with the student, and appointed by the Dean of Graduate Studies.

Appendices and Forms

plus an additional 9 units of geographic coursework. For Ph.D. students, the student's guidance committee must certify definition of this requirement.

GEOGRAPHY GRADUATE GROUP Program of Study for Master's Degree (MA)

Name: _____ Plan I (Thesis) _____ Plan II (Exam) _____
 B.A./B.S. from _____ Major: _____

	Course Number	Title	Units	Quarter
Geography CORE	GEO 200AN	Geographical Concepts	4	
	GEO 200BN	Theory and Practice of Geography	4	
	GEO 200CN	Quantitative Geography	4	
	GEO 200DN	Socio-Spatial Analysis in Geography	4	
	GEO 297	Seminar in Geography (2 quarters required)	4	
Geography Depth Courses (12 units)				
Electives				

Transfer Units	School	Course Number	Course Title	UG/G

TOTAL UNITS	36 total required, exclusive of 299 and 396 units
UC Courses (except 299 & 396)	
Transfer courses (up to 6 units)	
Total units (courses plus 299 & 396)	

Major Professor: _____ Date: _____
 Graduate Advisor: _____ Date: _____
 Program Coordinator: _____ Date: _____

This form must be completed and submitted to the Program Coordinator by December 1st every year.

GEOGRAPHY GRADUATE GROUP

Program of Study for Doctoral Degree (Ph.D.)

Name: _____

B.A./B.S. from _____ Major: _____

M.A./M.S. from _____ Major: _____

	Course Number	Title	Units	Quarter
Geography CORE	GEO 200AN	Geographical Concepts	4	
	GEO 200BN	Theory and Practice of Geography	4	
	GEO 200CN	Quantitative Geography	4	
	GEO 200DN	Socio-Spatial Analysis in Geography	4	
	GEO 200E	Advanced Research Design in Geography	2	
	GEO 297	Seminar in Geography (2 quarters required)	4	
Geography Depth Courses (16 units)				
Electives				

Transfer Units	School	Course Number	Course Title	UG/G

Language Requirement	Language: _____
-----------------------------	------------------------

TOTAL UNITS	48 total required, exclusive of 299 and 396 units
UC Courses (except 299 & 396)	
Transfer courses (up to 6 units)	
Total units (courses plus 299 & 396)	

Major Professor: _____ Date: _____

Graduate Advisor: _____ Date: _____

Program Coordinator: _____ Date: _____

This form must be completed and submitted to the Program Coordinator by December 1st every year.

Geographic Depth Courses in Environmental Sciences (Physical Geography)

The list below is the pre-approved selection of courses in the subfield of Physical Geography that students can choose from to fulfill their 12-16 units of Geographic Depth Courses.

Depth Courses Offered by GGG Faculty

(includes those to be Cross-Listed, proposed GEO number in parentheses):

GEO 210 Topics in Biogeography (W - alternate years)

GEO 211 Physical Geography Traditions and Methods (alternate years)

ECI 267 (GEO 212) Water Resources Management

ECL 201 (GEO 213) Ecosystems and Landscape Ecology (W - alternate years)

PBG 296 (GEO 214) Seminar in Geography Ecology

LDA 280 (GEO 253) Landscape Conservation

GEO 280 Field Studies in Geography (S)

Other Depth Courses

ECL 201 Ecosystems and Landscape Ecology (W - alternate years)

ECL 205 Community Ecology (W)

ECL 206 Concepts and Methods in Plant Community Ecology (F)

ECL 207 Plant Population Biology (W - alternate years)

ECL 208 Issues in Conservation Biology (W)

ECL 214 Marine Ecology (S - alternate years)

ECL 225 Terrestrial Field Ecology (S)

ECL 231 Mathematical Models in Population Biology (F)

ECL 232 Theoretical Ecology

Geographic Depth Courses in Methods, Models, and GIScience

The list below is the pre-approved selection of courses in the subfield of Methods, Models, and GIScience that students can choose from to fulfill their 12-16 units of Geographic Depth Courses.

Depth Courses Offered by GGG Faculty

(includes those to be Cross-Listed, proposed GEO number in parentheses)

PLS 205 (GEO 270) Experimental Design and Analysis
PLS 206 (GEO 271) Multivariate Systems and Modeling
ECL 220 (GEO 272) Spatio-temporal Ecology
HYD 273 (GEO 273) Introduction to Geostatistics
ESP 228 (GEO 274) Advanced Simulation Modeling
HYD 275 (GEO 275) Analysis of Spatial Processes
ECS 266 (GEO 276) Spatial Databases
WFC 222 (GEO 277) Advanced Population Dynamics
ECL 231 (GEO 278) Mathematical Methods and Population Biology
ECL 254 (GEO 279) Discrete Choice Analysis of Travel Demand
TTP 200 (GEO 280) Transportation Survey Methods
HYD 286 (GEO 281) Advanced Remote Sensing
LDA 280 (GEO 253) Landscape Conservation

Other Depth Courses

ESP 231 Population Biology

Geographic Depth Courses in Nature & Society

The list below is the pre-approved selection of courses in the subfield of Nature-Society Geography that students can choose from to fulfill their 12-16 units of Geographic Depth Courses.

Depth Courses Offered by GGG Faculty

(includes those to be Cross-Listed, proposed GEO number in parentheses)

ECL 211 (GEO 250) Advanced Topics in Cultural Ecology
ARE 214 (GEO 251) Development Economics
LDA 260 (GEO 252) Landscape and Power
LDA 280 (GEO 253) Landscape Conservation
CRD 244 (GEO 254) Political Ecology of Community Development
HIS 201W (GEO 256) Empires of Nature: Imperialism and the Natural World in Africa

Other Depth Courses

CRD 245 The Political Economy of Urban and Regional Development
ECL 210 Advanced Topics in Human Ecology
ECL 211 Advanced Topics in Cultural Ecology
ECL 212A Environmental Policy Process
ECL 216 Ecology and Agriculture
ESP 170 Environmental Impact Reporting
ESP 212A Environmental Policy Process
ESP 212B Environmental Policy Evaluation
ESP 278 Research Methods in Environmental Policy
SOC 206 Quantitative Analysis in Sociology
SOC 207A-207B Methods of Quantitative Research
SOC 233 Gender, Culture, and Local/Global Transformation.
SOC 245 Developing Societies
SOC 295 Special Topics: Environmental Sociology, Social and Political Ecology, Environmental Philosophy

Geographic Depth Courses - People, Place, and Region (Human Geography)

The list below is the pre-approved selection of courses in the subfield of Human Geography that students can choose from to fulfill their 12-16 units of Geographic Depth Courses.

Depth Courses Offered by GGG Faculty

(includes those to be Cross-Listed, proposed GEO number in parentheses)

LDA 200 (GEO 230) Citizenship, Democracy, & Public Space
LDA 201 (GEO 231) Theory and Philosophy of the Designed Environment
LDA 202 (GEO 232) Methods in Design and Landscape Research
LDA 205 (GEO 233) Physical Planning and Design
LDA 270 (GEO 234) Environment and Behavior
SOC 295 (GEO 235) International Migration
TTP 220 (GEO 236) Transportation Planning and Policy
CRD 240 (GEO 240) Community Development Theory
CRD 241 (GEO 241) The Economics of Community Development
CRD 245 (GEO 245) The Political Economy of Urban and Regional Development
CRD 246 (GEO 246) The Political Economy of Transnational Migration
CRD 248 (GEO 248) Social Policy, Welfare Theories and Communities

Other Depth Courses

CRD 242 Community Development Organizations
CRD 247 Transformation of Work
ECL 217 Conservation and Sustainable Development in Third World Nations
ECL 222 Human Ecology of Agriculture CST 206 Studies in Race Theory
LDA 204 Case Studies in Landscape Design and Research
LDA 220 Public Space and Culture
LDA 230 Landscape and Memory
LDA 240 Historic, Cultural Landscapes: Concept, Perception, Preservation
LDA 250 Life-Place: Bioregional Theory and Principles
LDA 260 Landscape and Power
LDA 280 Landscape Conservation
SOC 215 Economy, Polity, and Society
SOC 225 Cultural Sociology
SOC 227 Sociology of Reproduction
SOC 230 Ethnic (Race) Relations
SOC 233 Gender, Culture, and Local/Global Transformation
SOC 234 Gender, Family, and Society
SOC 242AB Comparative Methods in Historical Sociology
SOC 243 Urban Society
SOC 245 Developing Societies
SOC 248 Social Movements
SOC 292AB Field Research Methods

Ph.D. Qualifying Exam Format

(Originally developed by Debbie Elliott-Fisk, 10/6/2011. Revised by Chris Benner, 11/1/2013)

1. Eligibility to take qualifying examination - The student must have passed all required coursework and the language requirement prior to the exam, or in approved cases be finishing their final courses that quarter. One of the Geography graduate advisers must sign off on the coursework form, and it is attached to the qualifying exam application. The student selects the 5 exam committee members in consultation with their major professor, and this committee must be approved by the Geography graduate adviser. **Recommended Timing: Finalize committee and schedule date 3 months before qualifying exam date.**

2. Filing to take the qualifying examination - The student must file with Graduate Studies to take the examination, and they must approve the candidate for examination and his/her committee. The date of the exam is listed on this form, and Grad Studies must be notified if the date or the approved committee changes. Graduate Studies sends the approved paperwork for the exam to the examination chairperson via e-mail. The major professor should be on the exam committee, but cannot chair it (both according to GGG by-laws). At least three of the five members must be members of the GGG, and one member should be external to the GGG. If there is no external member (i.e., if all belong to the GGG), a separate letter from one of the graduate advisers must be attached to the application stating why the committee composition is appropriate (usually base on breadth of disciplinary expertise of faculty).

3. Develop a field statement and bibliography – The student should develop a field statement and detailed bibliography that defines the areas of student expertise and constitutes the basis for the qualifying exam. The field statement is a review of scholarly literature related to but broader than a student's intended topic of Ph.D. research. The field statement helps define the student's areas of expertise, forming a foundation for dissertation research and later helping the student with professional identification when entering the highly competitive job market. The field statement should be a 'state of the art' essay, identifying an active area (or several inter-related areas) of contemporary research, sorting out the important topics and debates within it, demonstrating awareness of the history of debates within this research area(s) and suggesting future research directions. It should include a detailed and extensive bibliography, organized into sub-fields. It is not expected that the student would know every detail of every item cited, but the student should know the best work well and know the existence and general contents of related literature. **Recommended Timing: An initial draft of the field statement should be given to the committee 2 months before the exam date, to allow them time to provide feedback and develop a final version 1 month before the exam.**

4. Written exam prior to oral exam - The student receives two questions from each examiner, (with a choice of which of the two to write on), and writes a response 1,000-1,500 words in length or so to each chosen question, for a total of 5 essays. The questions are collected by the exam chair from the faculty and sent to the student. The student has one-day to complete each question, and may write on these over consecutive or non-consecutive days up to a month before the exam. This is an open-book examination process administered on a trust basis, and the student should include citations to the literature in the essays. The questions should compiled by the exam chair and given to the student at least 2 weeks before the exam but no earlier than 4 weeks before the exam. Questions and the five written essays must be distributed to the full committee for review prior to the oral exam, with this typically done over email, with at least 2 days lead time for the faculty to review these before the oral exam and preferably a full week.

5. Dissertation proposal/prospectus - The dissertation proposal should be given to the committee at least a week before the exam, and preferably a month before the exam. A draft proposal may be given to the committee earlier in their discussions with the student about the content of the exam. The proposal should be approved as defensible for the exam by the major

professor. **Timing: Preferably a dissertation proposal approved by the major professor is distributed to the committee a month before the exam, but no later than a week before the exam.**

6. Oral exam content - The student is examined on the dissertation proposal and their declared areas of specialization as defined in their field statement. Students may also be asked questions about general geography, as covered in the core courses.

7. The format of the oral exam (which may last a maximum of 3 hours) is typically as follows:

- a. Committee meets without student for 5-10 minutes to review exam format, discuss responses to written questions, and the student's overall performance in the program (as passing the exam is also a function of past performance and future potential). The written essays are also often discussed in part with the student during the exam.
- b. The committee brings the student in and asks the student to spend about 5-10 minutes on their academic history, career goals, etc. (This is kind of a warm-up period.)
- c. We will then give the student about 30 minutes to present the dissertation proposal. This should be well organized, but can be relatively informal. The student may use slides/ppts and any other materials. The dissertation proposal should be given to the committee at least a week before the exam, and preferably a month before the exam.
- d. The committee then asks questions on the proposal, and this typically lasts 15-30 minutes.
- e. The group may then take a short break and come back for questions on the major and minor areas, etc. from each committee member. It is very likely that questions on the dissertation will also arise in this section. Each member will be given approximately 20 minutes to ask questions, with follow-up opportunities.
- f. If everyone is satisfied that they have asked enough questions, the committee asks the student to step outside while it confers. This typically takes 10 minutes, as everyone contributes to the discussion.
- g. We then bring the student back in to tell him/her the outcome of the exam. Relevant paperwork is signed (advancement to candidacy form by the exam chair and given to the student, qualifying exam report/outcome and given to Carrie and sent to Graduate Studies).