DEPARTMENT OF
ECOLOGY & EVOLUTIONARY BIOLOGY

GRADUATE HANDBOOK

UNIVERSITY OF CALIFORNIA
SANTA CRUZ
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CONTENTS (2006-2007)

EEB GRADUATE (Ph.D. & M.A.) PROGRAM OVERVIEW

The Ecology and Evolutionary Biology (EEB) Graduate Program at UCSC reflects the remarkable local and global diversity of species and environments studied by the EEB faculty and students. The vision of the EEB graduate program is to provide a nurturing, creative, and intellectual environment conducive to the development of world-class scientists. The small size of the EEB graduate programs encourages close working relations between students and faculty in an informal atmosphere conducive to rapid learning and professional growth. Interdisciplinary collaborations with oceanographers, geologists, toxicologists, and others enable students to explore the conceptual connections between related fields as they acquire mastery in their areas of specialization.

The graduate program in EEB is one of the premier programs in the country. This is due to the quality and commitment of the faculty; the long-standing tradition of the University of California and the unique environment of the Santa Cruz campus. UC Santa Cruz has been singularly blessed with varied and easily accessible marine and terrestrial resources for research. UCSC is ideal for marine research, having its own marine laboratory, a fleet of boats, and one of the most active scientific diving programs in the country. In close proximity to pinniped rookeries at the UC Reserve at Año Nuevo, the campus is located on Monterey Bay, which has the largest concentration of marine research programs in the country. In addition to state-of-the-art departmental laboratories, students have full access to the analytical laboratories and other facilities of the UCSC Institute of Marine Sciences.

Terrestrial biologists have access to all of California's natural environments through the University of California's Natural Reserve System; the diverse habitats on UCSC's 2,000 acre campus itself (mixed redwood forest, fossil sand dune associations, rolling pasture land, chaparral) and on several adjacent preserves; the UCSC experimental Farm and Garden extensive Southern Hemisphere plantings in the UCSC Arboretum; and greenhouses and associated laboratory facilities. More than two-thirds of our faculty participate actively in field studies throughout the Pacific Basin (from Alaska to Antarctica), in Pacific Rim nations (Latin America, the Far East, and Australia), and beyond.

The graduate program in Ecology and Evolutionary Biology (EEB), which offers masters' and doctoral degrees, is comprised of four core tracks:

- Population and Community Ecology
- Evolutionary Biology
- Physiology and Behavior (Marine & Terrestrial)
- Systematics and Biodiversity

The EEB group includes the following faculty: Drs. Bernardi, Carr, Costa, Croll, Doak, Estes (adjunct professor with an MOU between the USGS and the department), Fox, Goff, Lyon, Parker, Pogson, Potts, Raimondi, Sinervo, Thompson, and Williams. Emeritus EE Biology faculty who still participate in many aspects of the EEB group include Drs. Langenheim, LeBoeuf, Newberry, Ortiz and Pearse. In addition, the following adjunct professors have the ability to co-sponsor PhD students: Terry Gosliner, Bruce MacFarlane, Bernie Tershy, Robert Vrijenhoek and Kerstin Wasson.

PARTCIPATING FACULTY

Giacomo Bernardi • Molecular Evolution of Fishes
Mark Carr •Population and Community Ecology of Marine Organisms
Daniel P. Costa • Physiological Ecology of Marine Mammals and Birds
Donald A. Croll • Marine Ecology, Marine Conservation Biology
Daniel F. Doak • Population Ecology
Jim Estes (Adjunct) • Marine Ecology and Conservation Biology
Laurel R. Fox • Population and Community Ecology; Plant-Herbivore Interactions
Lynda J. Goff • Cell-Cell and Genome Interaction in Algae and the Evolution of Parasitism
Terrie Gosliner (Adjunct) • Phylogenetic Systematics, Evolutionary Biology of Marine Invertebrates
Daniel Harder (Adjunct) • Botanical Conservation
Bruce E. Lyon • Behavioral Ecology; Evolutionary Ecology
Bruce MacFarlane (Adjunct) • Physiological Ecology of Marine, Estuarine, and Anadromous Fishes
Ingrid M. Parker • Plant Ecology, EE Biology of Species Invasions
Grant H. Pogson • Molecular Population Genetics, Ecological Genetics
Donald C. Potts • Population Biology and Coral Reef Ecology
Bernie Tershy (Adjunct) • Ecology and Conservation of Seabirds and Island Ecosystems
Peter T. Raimondi • Ecology & Evolutionary Biology of Marine Organisms
Barry Sinervo • Behavioral Ecology, Natural and Sexual Selection on Reproduction
John Thompson • Coevolution and the Organization of Biodiversity
Robert Vrijenhoek (Adjunct) • Marine Biology, Genetics and Evolution, Conservation
Kerstin Wasson (Adjunct) • Evolutionary Ecology and Conservation of Estuarine Ecosystems
Terrie M. Williams • Environmental & Exercise Physiology, Functional Biodiversity

GRADUATE ADVISORY COMMITTEE

The EEB Graduate Advisory Committee (EEB-GAC) is the primary link between the students, department and university. It has the following general responsibilities:

1) Admissions - Responsibilities include advertising the program, reviewing applications, planning recruiting activities, providing the final acceptance of students and developing offers of support.

2) Advise and ensure timely progress toward degree - Responsibilities include student orientation, advising and ensuring thesis committee meetings are held for continuing students.

3) Ensure proper faculty participation on student committees – Responsibilities include ensuring that comprehensive, proposal and dissertation committees are consistent with EEB regulations (see below).

4) Provide authority for resolving disputes involving graduate students and faculty or acting on requests to waive regulations (stated below).

5) Funding – Responsibilities include identifying funding sources to support graduate student activities and allocation of University support for continuing students.

GRADUATE STUDENT REPRESENTATIVES

In 2003 the department began a process to increase the participation of graduate students in departmental functions. As an example one of the members of the invited seminar committee (responsible for organizing the weekly seminar speakers) is a graduate student. As part of the spirit of increased participation, grad representatives (no more than 2) are allowed to attend faculty meetings (excluding those parts where confidential information is discussed). The graduate representatives are selected by the graduate students. Typically they serve 1-2 years. In addition the chair of the department will hold meetings with the graduate students at least twice per year: Fall and Spring quarters.

ORIENTATION

Newly admitted students are expected to arrive in September for orientation at least one week before the start of classes. EE Biology offers an in-house orientation, which may include biosafety training, Title IX overview, science library introduction, e-mail set-up, and advisory committee meeting. At this time students should sign up for payroll in the Physical and Biological Sciences (PBSCI) Division business office located on the 3rd floor of the Jack Baskin Engineering Building. Additional orientation workshops are provided through the Graduate Student Association (GSA) and the Center for Teaching Excellence (CTE). GSA conducts a general orientation for new graduate students and CTE provides a Teaching Assistant (TA) orientation for new graduate students. EE Biology does not require new students to attend either workshop, however, it is strongly recommended because of the useful general knowledge presented that may be difficult to acquire elsewhere. All new graduate students are required to attend the department dinner given early in the fall quarter and the department orientation. The dinner is an opportunity for the new graduate students to meet UCSC's EEB community.

ADVISORY COMMITTEE

Students will meet with an Advisory Committee, during the September Department Orientation, which includes at least one member of GAC and the student's advisor. The Advisory Committee evaluates the student's strengths and deficiencies, recommends or assigns remedial and other appropriate courses (both lower division and upper division undergraduate), explains the compulsory courses (Biology 250 A & B, 293, 279 and 294), and assures itself (with the student's supervisor) that the student is adequately provided with workspace. The Advisory Committee (or a member) has the authority to monitor the student's progress during the first year. Ph.D. students (that have successfully completed M.A. in the Biological Sciences) that feel they completed the equivalent graduate course comparable to one of the Biology Core Series (250A, 250B and 279) should take this opportunity to discuss the possibility of a course waiver.

EEB GRADUATE COURSES

Bio 250A Advanced Organismal Biology (Winter)
Consists of lectures focusing on pivotal topics in ecology and evolution. Relevant background material is developed followed by a critical analysis of readings from the primary literature. Designed to give graduate (and advanced undergraduate) students direct contact with the major areas of research that are currently at the forefront of organismal Biology.

Bio 250B Scientific Skills (Fall)
Exposes graduate students to teaching skills, understanding the scientific method, searching and organizing literature, grant proposal and scientific writing, data management and presentation, and scientific speaking. Students are evaluated on their participation and the quality of a written research proposal. Enrollment restricted to graduate students. *Optional but highly recommended for MA students.

Bio 279 Evolutionary Ecology (Fall)
Formal lectures will be given on ten major topics in Evolutionary Ecology: (1) Natural Selection and the Demographic Structure of Populations, (2) Populations and Metapopulations, (3) The Evolutionary Sizes of Populations, (4) Gene Flow and the Phylogeographic Structure of Species, (5) Evolutionary Structure of Ecological Specialization, (6) The Geographic Mosaic of Coevolution, (7) Evolutionary Ecology of Antagonistic Trophic Interactions, (8) Evolutionary Ecology of Competitive Interactions, (9) Evolutionary Ecology of Mutualisms and (10) Species Interactions, Speciation, and Communities. Each lecture will be accompanied by readings from recent primary literature and some local field trips.

Bio 293 Readings in Ecology and Evolution (Winter & Spring)
Weekly readings and discussions of recent research papers in ecology, evolution, and related topics from organismal biology. May be repeated for credit. Enrollment restricted to graduate students.

Bio 294 Ecology and Evolutionary Biology Seminar (Fall, Winter, Spring)
Selected topics of current interest to ecologists and evolutionary biologist presented by weekly guest speakers.

Biol 295: Advanced Specialized Seminar (Varies)
The intent of this course is to focus on a current, advanced theme or themes in theoretical or applied evolutionary biology, ecology, physiology, behavior, or other aspect of organismal biology. These courses will differ from 293s in that they will be more narrowly focused and more advanced, and participation from multiple grad cohorts, postdocs, and additional faculty will be welcomed. Different faculty members will teach these seminars depending on perceived need in the graduate student body.

Biol 281: Lab Meetings with Advisors (Fall, Winter, Spring)

Biol 297:Independent Studies (Fall, Winter, Spring)
Independent study for graduate students who have not yet settled on a research area for their thesis. Prerequisite(s): petition on file with sponsoring agency.

Biol 299:Thesis Research (Fall, Winter, Spring)
Thesis research study for Ph.D. graduate students who have advanced to candidacy. Prerequisite(s): petition on file with the sponsoring agency.

PH.D. PROGRAM IN ECOLOGY & EVOLUTIONARY BIOLOGY

The vision of Ecology & Evolutionary Biology (EEB) graduate program is to provide a nurturing, creative and intellectual environment conducive to the development of world-class scientists. The program in (EEB) comprises faculty in EE Biology and related areas of Chemistry, Ocean Sciences, and Environmental Studies. Currently, the EEB group concentrates on (1) population and community ecology; (2) evolutionary biology; (3) physiology and behavior, especially of marine mammals; and (4) systematics and biodiversity.

REQUIRED COURSEWORK

Ph.D. students must take Biology 250 A & B in the first year (generally offered during the Fall (250A) and Winter (250B) quarters). Biology 279 must be taken Fall quarter of the first year; *Biology 293, offered each Winter and Spring, is required four quarters thereafter and should be completed at the end of the year two. Biology 281, 294, and 297/299 must be taken every quarter the student is in residence. All students must be enrolled in at least 15 units per quarter, unless on approved Part-Time, Absentia or Leave of Absence status.

*Students entering in fall 2004 and on may use Biol 295 to fulfill two of their four Biol 293 requirements.

TEACHING ASSISTANT (TA) REQUIREMENT

PhD students must serve as TA for two quarters during their graduate career.

COMPREHENSIVE EXAMINATION (Orals)

During Term 4 (Fall of year 2) students take a Comprehensive Examination. This is a two-part exam, written and oral, the goal of which is to examine the student's breadth and depth of knowledge of Evolution, Ecology, Physiology, Behavior, Organismal and General Biology. A committee is comprised of four examiners selected by each student and his/her supervisor. Each student's area of research together with the stated goal of the exam should guide the composition of his/her committee. However in all cases the makeup of the committee is expected to follow these guidelines:

- All committees are expected to represent expertise in ALL of the following three areas: Physiology/Organismal Biology, Evolution, and Ecology.
- No committee should be made up entirely of faculty whose primary taxonomic expertise is in a single area (e.g. all plants, all invertebrates, all vertebrates).
- No committee should be made up entirely of faculty from either main campus or Long Marine Lab. The point of this is to maintain ties between the “two campuses.”
- All members of the committee are responsible for ensuring coverage of general Biology questions (up to ~25% of the material).

Based on these criteria, the composition of the committee is such that breadth of knowledge in the biological sciences in general, and the student’s focal area of interest in particular, should be tested. The most common mistake made in developing these committees is one in which the composition is too narrow in expertise.

The Chair of the committee will be a tenured member of EEB except when otherwise approved by GAC. A student's supervisor will usually be part of the committee but may not chair this panel. Committee selection should be forwarded to GAC. Although approval from GAC is not a requirement, it is the responsibility of GAC to ensure departmental standards and a level of consistency for all students.

In both the written and the oral exams, the expected level of knowledge of basic Biology ranges from that of Curtis, Campbell or Freeman (texts) in fields most removed from a student's focus area, to a more substantial and advanced level in fields closer to the student's focus area.

The written exam is comprised of questions posed by the four examiners. Students will have 4 days to complete the exam. The content and format of his/her question(s) is up to each committee member. The Chair organizes the written exam to prevent duplication, to ensure reasonably consistent load among student's exams, etc. Ordinarily questions from each examiner will take a student one day to complete. Within one week of the written exam, the committee will determine if the student has passed that portion of the exam, and if so the student will go on to take the oral portion of the Comprehensive Examination (usually within one week of completion of writtens). The same committee examines the student with a three to four-hour oral exam that explores the student's answers to the written exam and other relevant scientific areas. The committee as a whole deliberates and decides on the merits of the student's performance. If a student passes the written portion of the exam but fails the oral portion, the committee immediately assigns appropriate remedial work and asks the student to schedule the oral re-examination.

If the student fails the written portion of the exam, s/he is not allowed to take the oral exam until the deficiencies of the written exam are remedied. Ordinarily, the written re-test, revised appropriately by the committee in consultation with the Chair, and the oral exam must be passed, by the end of Term 5. Even in cases where the student passes the exam, the committee may require additional coursework to make up for deficiencies noted during the exam.

If the student fails the oral portion of the exam s/he will be allowed one re-test. A second failure will result in the student being dismissed from the program. All dismissals will be reviewed by GAC.

If a student wishes to delay the comprehensive exam to a later term, the request including justification from both the student and sponsor, must be made in writing to EEB-GAC.

DISSERTATION PROPOSAL DEFENSE (Qualifying Exam) COMMITTEE

As early as possible after passing the Comprehensive Exam, the student, in consultation with his/her supervisor, should form a Dissertation Proposal/Qualifying Exam Committee. The Committee consists of at least four members. At least two members of the committee must be active faculty in the EEB department and one must be from outside the department. The Chair of the Committee must be a tenured faculty member from within the department (other than the student's supervisor). The outside member should be: (1) a tenured or tenure track (or hold rank equivalent to be tenured, or tenure track) faculty member either from a different discipline from the Santa Cruz campus (2) a tenured (or tenure track) member of the same or a different discipline from another campus or, (3) a member or another entity (e.g. Government agency or NGO) who has specific expertise relevant to the dissertation. GAC has ultimate authority to accept or reject committee members to ensure consistency with departmental and University goals and standards for a dissertation (see below).

The student and his/her supervisor recommend appropriate members for the Dissertation

Proposal/Qualifying Exam Committee. After the student advances to candidacy; this Committee remains standing as the Dissertation Reading Committee (requiring a new form) until the student has completed all requirements for the doctoral degree; however, individual members of the committee may change at the discretion of the student and supervisor. Committee amendments require Graduate Division approval.

PROPOSAL DEFENSE (Qualifying Exam) EXAM

During Term 6 the student submits a dissertation research proposal to his/her Dissertation Proposal/Qualifying Exam Committee and defends it in a three-hour oral examination before the Committee (see below). The proposal must be submitted to the Committee at least ten days before the defense. If the student is unsuccessful in convincing the Dissertation Proposal/Qualifying Exam Committee of the merit of the proposed research program, the proposal must be modified until it is acceptable. The final, modified proposal must be completed no later than the beginning of Term 7 (Fall of Year 3).

The dissertation research proposal should be written as a formal proposal, in the format of an NSF Doctoral Dissertation Improvement Grant (DDIG). One criterion of a satisfactory proposal is that it is of the quality required for submission to a granting agency. In fact, submission of the proposal for funding is encouraged.

The committee meets for about 10 minutes prior to the start of the examination to review the student's file and discuss any specific issues relevant to the examination. Students are called in and asked to give a short (~10 –15 minute) presentation for their proposal. They may be interrupted at any time during this presentation and asked to elaborate on or clarify points. Usually the oral exam will cover scientific areas directly concerned with the research proposal. The examination typically takes about 3 hours, after which the student is asked to leave the room. The committee discusses the performance and comes to a consensus. The student is invited back in and informed of the outcome of the examination. Students may pass, fail or receive a conditional pass. A passing performance generally includes a demonstration of ability to design and execute an independent research project, and to defend ideas. The quality of the written proposal alone is not sufficient to merit passing. In the case of a conditional pass, the committee will define any deficiencies in the proposal or performance in the exam and provide a timetable during which the student must rectify the problems. If the student fails, they may be given the option of re-taking the examination with the same committee after appropriate preparation and guidance. If a student fails twice, they will be dismissed from the program. All dismissals will be reviewed by GAC. A written summary of the outcome is prepared by the chair, reviewed and signed by all committee members. A copy is provided for the student and a copy placed in their file.

ADVANCEMENT TO CANDIDACY

The student advances to candidacy (ATC) only after completing all coursework, passing the written and oral portions of the Comprehensive Examination, writing and defending a dissertation research proposal and presenting a candidacy seminar on his/her proposed research. The seminar may be part of a regular weekly seminar series or may be specially scheduled. However, students are encouraged to schedule their student seminars during the standard allotted time block: Monday from 3:30-4:30 in EMS A340 or Friday from 4:30-5:30 in the COH Conference room. This seminar must be scheduled so that at least three of the four members of the student's Dissertation Committee can attend.

Ordinarily, one advances to candidacy in Term 9 (Spring of Year 3), however a student may advance as

soon as he or she has successfully completed the dissertation proposal defense. This step must be scheduled carefully, weighing not only the financial benefits for student, but also the three-year restriction on candidacy for the doctorate. The Qualifying/Dissertation Committee advances the student to candidacy by signing the appropriate document, but only after s/he has passed the prerequisite courses and exams, proposal defense and presented a candidacy seminar. Via the EE Biology Graduate Assistant, students submit their Dissertation Reading Committee form, along with the qualifying exam report and the advancement fee to the Graduate Division. Advancement to Candidacy takes effect on the first day of the quarter following the receipt of the previously listed forms and payment of Advancement to Candidacy fee.

Foreign students, who remain "out-of-state" until advancement to candidacy, however, are encouraged to give their seminar before the beginning of the third year to minimize the fee costs to themselves and the EE Biology Department. In this case, students will have an additional four years (twelve quarters) to complete their degree within normative time.

Once a student advances to candidacy…….

- Their sponsor serves as the chair of their Dissertation Reading Committee.
- They automatically qualify for the In-Candidacy Offset Fee Grant (ICFOG) for six consecutive quarters. ICFOG is a small reduction off your registration fee and changes on an annual basis (~estimated reduction $300 per quarter).
- They move from Graduate Student Researcher (GSR) Step II to Step III (~estimated salary increase of $450 per quarter).

NORMATIVE TIME

The target time for the Ph.D. is five years. Normative time for the Ph.D. degree within the University of California is six years. Students who fail to complete their thesis within this time must request an extension from the Graduate Division. A written request signed by the student and advisor detailing the timetable to finish should be countersigned by the GAC chair prior to submission to the Graduate Dean. Multiple extensions are not automatic. If the Ph.D. degree is not awarded within seven years from the date of advancement to candidacy, the student's candidacy shall lapse and the student will be required to pass a new qualifying exam prior to submitting the dissertation or undergo such other formal review as the student's board shall direct, and the result of this examination or review shall be transmitted in writing to the Graduate Council. (Academic Senate Regulation 18.6)

DISSERTATION PREPARATION

When the student's advisor and dissertation committee have agreed that the research is at the stage to be submitted, the student may proceed with the details of "writing up" according to the guidelines prescribed by the University Library and the Graduate Division. Although the topic and nature (e.g. theory, field work) of the dissertation is the domain of the student and the dissertation committee, all dissertations should reflect:

- a high level of personal scholarship as evidenced by:
    - independent design and implementation of a research project
    - creativity in questions and approach

- the ability to carry to completion a complex research project
- the synthesis of new empirical results or new theory with existing results and theory
- a demonstrated ability to understand the broader significance of the dissertation research

DISSERTATION DEFENSE

The student must submit his/her doctoral dissertation to the Dissertation Committee for tentative approval at least 60 days before presenting a formal, public doctoral research seminar. It is recommended that the student contact the members of their committee after 30 days of submission to ensure timely comments before the defense. Also, the student must meet with the Dissertation Committee to defend the thesis at least one week prior to the public seminar. At that time the Dissertation Committee, with the exception of the Chair, may sign the cover page of the student's dissertation. There are no formal rules governing the dissertation defense. However, to pass the defense it is required that all members agree that that the dissertation as written meets the standards of the University and Department (as noted above). If the committee determines that the dissertation does not meet the mentioned standards, the committee must produce a written document, within 1 week that lists the deficiencies and indicates a timeline for correcting the deficiencies. If the dissertation ultimately does not gain the committee's approval the student will be dismissed from the program. All dismissals will be reviewed by GAC. All the members of the student's Dissertation Committee should be in attendance at both the defense and the public seminar. However, if the external member of the committee resides far from UCSC and his or her attendance would constitute a financial or other hardship (to either the student or external member), their attendance may be waived. In such cases written comments from the external member should be solicited and received by the Chair before the dissertation defense.

The Chair signs the cover sheet only after the research has been presented in a public seminar, and part or all of it submitted for refereed publication.

PUBLICATION

Before the dissertation is accepted for signature by the Dissertation Committee at least one chapter must be submitted as a paper (not an abstract) to a refereed journal for publication. Delays in refereeing, acceptance, and printing may well delay actual publication of the paper until after the doctoral degree has been granted. The submitted dissertation must have a general introduction and summarization that gives it coherence as a report on the candidate's research.

Ph.D. PROGRAM OUTLINE (Summary timetable for the Ph.D. degree)

Year 1

Fall
Advisory meeting
Bio 250A - Advanced Organismal Biology
Bio 279 Evolutionary Ecology
Bio 294 Seminar in Ecology and Evolutionary Biology (Wed. Departmental Seminar)
Bio 281 (Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)

Winter
Bio 250B – Scientific Skills
Bio 293 Readings in Ecology and Evolutionary Biology
Bio 294 Seminar in Ecology and Evolutionary Biology (Wed. Departmental Seminar)
Bio 281 (Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)

Spring
Bio 293 Readings in Ecology and Evolutionary Biology
Bio 294 Seminar in Ecology and Evolutionary Biology (Wed. Departmental Seminar)
Bio 281 (Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)

FORM YOUR COMPREHENSIVE EXAM COMMITTEE

Summer
Independent Studies (Bio 297)

Year 2

Fall
WRITTEN AND ORAL COMPREHENSIVE EXAM
Bio 294 Seminar in Ecology and Evolutionary EE Biology (Wed. Departmental Seminar)
Bio 281 (Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)
FORM YOUR DISSERTATION PROPOSAL COMMITTEE

Winter
Bio 293/295 Readings in Ecology and Evolutionary Biology
Bio 294 Seminar in Ecology and Evolutionary Biology (Wed. Departmental Seminar)
Bio 281 (Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)

Spring
PROPOSAL DEFENSE*
Bio 293/295 Readings in Ecology and Evolutionary Biology
Bio 294 Seminar in Ecology and Evolutionary Biology (Wed. Departmental Seminar)
Bio 281(Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)

*Student may advance to candidacy as soon as proposal seminar is given although the University suggests you wait until the 9th quarter (Spring 3rd year)

Summer Independent Studies (Bio 297)

Year 3-5 – You should now be doing thesis research and your class units will be mainly Bio 299. While you are in residence (not in the field) you are expected to attend Bio 294, 281, and 299

Spring Year 5 – Dissertation defense and public seminar.

MASTER'S PROGRAM IN ECOLOGY & EVOLUTIONARY BIOLOGY (M.A.)

This policy statement supercedes any previous pathways to the degree in EE Biology.

The purpose of the Master's Program in EEB is to allow a student not immediately interested in pursuing a Ph.D. to complete graduate level research that is usually more directed and shorter-term than that done by doctoral students. Unless noted below, requirements for the Masters program are similar to those of the PhD program. The program in (EEB) comprises faculty in EE Biology and related areas of Chemistry, Ocean Sciences, and Environmental Studies. Currently, the EEB group concentrates on (1) population and community ecology; (2) evolutionary biology; (3) physiology and behavior, especially of marine mammals; and (4) systematics and biodiversity.

REQUIRED COURSEWORK

M.A. students must take Bio 250A, Bio 279, two quarters of Bio 293, Bio 294 with their first two years. Biology 281, 294, and 297 must be taken every quarter the student is in residence. Bio 250B is recommended but not required. All students must be enrolled in at least 15 units per quarter, unless on approved Part-Time, Absentia or Leave of Absence status.

*Students entering in fall 2004 and on may use Biol 295 to fulfill one of their two Biol 293 requirements.

TEACHING ASSISTANT (TA) REQUIREMENTS

Masters students must serve as a TA for one quarter during their graduate career.

THESIS COMMITTEE

Each student must, in consultation with his/her supervisor, assemble a thesis committee no later than Spring quarter of their 1st year. The thesis committee has the responsibility for ensuring the standards and goals of the Department and University. The composition of the committee must consist of a minimum of three members, two of which must be in the EEB department and who are members of the Academic Senate. The third member should be either from EEB (or who have advising privilege within the department), another department at UCSC, from another University or from another scientific entity and have standing equivalent to that of a person in a tenure track or tenured position in the University of California. The chair of the committee will be the student's supervisor. Final approval of the Thesis Committee is the responsibility of GAC.

THESIS PROPOSAL MEETING

Each Masters student must present his or her thesis research project to the Thesis committee for review and approval, no later than Fall of the second year. The primary responsibility for the committee at this point will be to evaluate and guide revision to the student's written thesis proposal. Each student must submit a Thesis research proposal to his/her Thesis Committee at least ten days before the committee meeting. The research proposal should be written as a formal proposal, in the format of an NSF Doctoral Dissertation Improvement Grant (DDIG). Although the topic and nature (e.g. theory, field work) of the thesis is the domain of the student and the thesis committee, all theses should reflect the same qualities as those required in the PhD program, with the exception of the degree of emphasis on independence and creativity. This exception recognizes that many Masters projects are projects of special opportunity

crafted by the thesis advisor (or other committee member).

While there is no formal requirement as to the nature of the meeting, a report of the student's progress toward degree and approval of the research project must be submitted to the EEB department no later than 1 month following the meeting.

If the student is unsuccessful in convincing the Thesis Committee of the merit of the proposed research project, the proposal must be modified until it is acceptable. If the committee ultimately decides that the proposed research cannot meet thesis standards, a new project must be proposed. If the committee determines that the student cannot carry out Masters level research, the student will be dismissed. (All dismissal cases will be reviewed by GAC). Except for unusual circumstances, the final, modified proposal must be completed no later than the beginning of Term 5 (Winter of Year 2).

Annual meetings/progress reports are required for students once they obtain research approval from their committee, and for student who remain in the program beyond two years.

NORMATIVE TIME

The target time for the Master program is two years. Normative time is 3 years. Students who fail to complete their thesis within this time must request an extension from the Graduate Division. A written request signed by the student and advisor detailing the timetable to finish should be countersigned by the GAC chair prior to submission to the Graduate Dean. Multiple extensions are not automatic.

THESIS DEFENSE

The student must submit his/her Thesis Committee for tentative approval at least 60 days before presenting a formal, public research seminar. It is recommended that the student contact the members of their committee after 30 days of submission to ensure timely comments before the defense. Also, the student must meet with the Thesis Committee to defend the thesis at least one week prior to the public seminar. If the committee determines that the thesis does not meet the mentioned standards, the committee must produce a written document, within one week that lists the deficiencies and indicates a timeline for correcting the deficiencies. If the thesis ultimately does not gain the committee's approval, the student will be dismissed from the program. All dismissals will be reviewed by GAC. At that time the Committee may sign the cover page of the student's dissertation. All the student's Thesis Committee members should be in attendance at the defense and preferably also at the public seminar. However, if the external member of the committee resides far from UCSC and his or her attendance would constitute a financial or other hardship (to either the student or external member), their attendance may be waived. In such cases written comments from the external member should be solicited and received by the Chair (sponsor) before the proposal defense.

The Chair may sign the cover sheet only after the research has been presented in a public seminar.

PUBLICATION

There is no requirement but it is highly recommended that at least one thesis chapter be submitted as a paper (not an abstract) to a refereed journal for publication. The submitted thesis must have a general introduction and summarization that gives it coherence as a report on the candidate's research.

MASTERS PROGRAM OUTLINE (Summary timetable for the Masters degree)

Year 1

Fall
Advisory meeting
Bio 250A - Advanced Organismal Biology
Bio 279 Evolutionary Ecology
Bio 294 Seminar in Ecology and Evolutionary Biology (Wed. Departmental Seminar)
Bio 281 (Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)

Winter
Bio 293 Readings in Ecology and Evolutionary Biology
Bio 294 Seminar in Ecology and Evolutionary Biology (Wed. Departmental Seminar)
Bio 281 (Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)
Highly Recommended: Bio 250B – Scientific Skills

Spring
Bio 293/295 Readings in Ecology and Evolutionary Biology
Bio 294 Seminar in Ecology and Evolutionary Biology (Wed. Departmental Seminar)
Bio 281 (Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)
FORM YOUR THESIS COMMITTEE

Summer
Independent Studies (Bio 297)

Year 2 - 3

Fall
REQUIRED THESIS COMMITTEE MEETING
Bio 294 Seminar in Ecology and Evolutionary Biology (Wed. Departmental Seminar)
Bio 281 (Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)

Winter
Bio 294 Seminar in Ecology and Evolutionary Biology (Wed. Departmental Seminar)
Bio 281 (Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)

Spring
Bio 294 Seminar in Ecology and Evolutionary Biology (Wed. Departmental Seminar)
Bio 281 (Lab meetings with your advisor)
Other courses as determined by advisory meeting
Bio 297 – Independent study (as needed to come to 15 total units)

Summer Independent Studies (Bio 297)

Year 3+: research and writing should be completed no later than the end of your third year. You should now be doing thesis research and writing, and your class units will be mainly 297. While you are in residence (not in the field) you are expected to take Bio 294, 281 and 297.

EEB PROGRAM POLICIES

All paperwork, forms, applications, etc. in connection with the Graduate Division must go through the EE Biology Graduate Advisor.

NORMAL COURSE LOAD

EE Biology graduate students are expected to work full-time towards their degrees and each student should enroll for 15 units or more every quarter.

COMPLETION OF PREVIOUS DEGREE

1. No student may enroll as a graduate student at UCSC until a bachelor's degree has been completed.

2. Newly accepted students who are currently completing another graduate degree normally will not be permitted to enroll in the EEB Graduate Program until the previous degree has been completed (or abandoned).

3. Under special circumstances, the EEB-GAC Program committee may permit a student to initiate or complete another graduate degree after entering the Masters or Ph.D. Program. Approval must be obtained from EEB-GAC before enrolling for the first time, along with a timetable for completion of the non-EEB degree. If inadequate progress is made toward the completion of the EEB graduate degree, GAC reserves the right to:

    A. require the student to withdraw from the other degree program. If the student chooses not to follow GAC's requirement, to

    B. dismiss the student from the EEB graduate program

LEAVE OF ABSENCE (LOA)

1. Students are expected to engage in their graduate student activities continuously (including the summer) from the time of admission until completion of the thesis or dissertation. Any leave of absence must be authorized in advance through the Graduate Assistant.

2. Approval for a leave of absence will be recommended to the Graduate Dean only under unusual or exceptional circumstances. Requests for leave must be submitted in writing to EEB GAC and must include justifications and the consent of the student's advisor or EEB GAC, whichever applies to the individual student.

3. Time spent on leave continues to count toward all departmental and university time requirements, including, but not limited to, passing the qualifying exam, the three-year limit after advancement to candidacy, and the six-year limit on normative time for completion of graduate work at UCSC.

4. Making use of an approved leave of absence will not jeopardize maintaining the satisfactory academic progress that must be reported annually to the Graduate Dean.

5. If a leave of absence is granted, it is the responsibility of the student to be familiar with all relevant departmental and university regulations, and to file any necessary paperwork both with the EE Biology Office and the Graduate Division. Please refer to EE Biology Graduate Assistant.

6. Foreign students have additional responsibilities to meet any restrictions imposed by their visas, and must also have approval from International Services. Please refer to the International Programs Coordinator, 831-459-2858.

7. Readmission to the program after a leave is contingent upon any conditions set by the department or the Graduate Dean (refer to #5 on leave of absence form).

8. LOA students will not be allowed to use the universities facilities while they are on their leave. LOA students must stay in compliance with the regulations of the LOA policy should they decided to pursue this option.

9. Students that have not Advanced to Candidacy are strongly discouraged from applying for a Leave of Absence.

10. Advanced to Candidacy students automatically qualify for the In-Candidacy Offset Fee Grant (ICFOG) which you will receive for six consecutive quarters. The ICFOG grant is a small reduction off your registration fee and changes on an annual basis (~estimated reduction $300 per quarter). A Leave of Absence will permanently terminate an Advanced to Candidacy student's eligibility for the grant.

11. Students on approved LOA are eligible for Filing Fee their last quarter at UCSC.

12. Student on LOA wanting health insurance coverage will need to contact the UCSC Health Insurance Office directly.

PART-TIME ENROLLMENT

A graduate student may go on part-time status (2-8 units), pending faculty advisor, GAC and Graduate Division approval. A part-time graduate student will pay the full Registration Fee, one-half the Educational Fee, and all other campus fees except the Health Insurance Fee. A part-time student is eligible for Graduate Student Health Insurance, but will not be assessed the Health Insurance Fee. A part-time student electing to participate in the Graduate Health Insurance Plan should contact the Cowell Health Center. Contact the Graduate Assistant on how to obtain Part-Time status approval from the department.

ANNUAL COMMITTEE MEETINGS

Ph.D. students that have Advanced to Candidacy and Master Students that have passed their proposal defense are required to hold annual meetings with their dissertation/thesis reading committee. Students should try to complete this requirement by the Progress Report deadline in early April. A student who fails to hold their annual committee meetings is not in good standing and subject to academic probation. Any exceptions to this policy will have to be made in writing by the student prior to the Progress Report deadline, and approved by GAC.

EXAMINATION DEADLINES

1. Ph.D. candidates should complete the Comprehensive examination in the fall of year two. If a student wishes to delay the comprehensive exam to a later term, the request including justification

from both the student and sponsor, must be made in writing to EEB-GAC via the Graduate Assistant prior to the beginning of Winter Quarter of year two.

2. Ph.D. candidates should complete the Dissertation Proposal Defense examination no later than Fall Quarter in their third year or they will not be allowed to register, TA, or RA. The Graduate Division will be notified and course enrollment will be denied. Any exceptions to this policy will have to be made in writing by the student's faculty sponsor (or EEB committee member) prior to the beginning of the Winter Quarter of the third year.

3. If explicitly invited to do so by the examination committee, students who fail the Dissertation Proposal Defense Examination have one quarter to produce a Master's thesis (on current research) or retake the examination.

PROGRESS REPORTS

The Graduate Division requires an annual report of progress for every Ph.D. student. A standardized form is supplied by the EE Biology Graduate Advisor, which is filled out and signed by the advisor and student. These forms are not optional! The deadline is April of each year.

ACADEMIC PROBATION

All graduate students are required to maintain satisfactory academic progress towards degree while in the EEB graduate program.

1. A student whose academic progress is judged not satisfactory by GAC will be placed on academic probation until such time (one academic year, maximum) as her or his progress has become satisfactory once again and the Dean of Graduate Studies has been so informed in writing by the department.

2. A student whose academic progress has been found not satisfactory by GAC in two successive annual reviews will be subject to dismissal from the program.

3. A full-time student who has been enrolled in the same graduate program for four calendar years without advancing to candidacy for the Ph.D. is not considered to be making satisfactory progress and will be placed on academic probation until advancement is achieved. Any exceptions to this policy will have to be made in writing by the student's faculty sponsor (or EEB committee member) prior to the beginning of Fall Quarter of the fifth year, and approved by GAC.

4. A student who has been advanced to candidacy for more than three calendar years is not considered to be making satisfactory academic progress and may be placed on probation for up to one academic year by the department. Any exceptions to this policy will have to be made in writing by the student's faculty sponsor (or EEB committee member) prior to the beginning of the fourth year of advancement, and approved by GAC.

5. A full-time master's degree student is considered not to be making satisfactory progress beyond three calendar years of enrollment and may be placed on probation for up to one academic year by the department. Any exceptions to this policy will have to be made in writing by the student's faculty sponsor (or EEB committee member) prior to the beginning of Fall Quarter of the fourth year, and approved by GAC.

6. A student who fails to register promptly following expiration of an approved leave of absence is not in good standing.

7. Students who are neither registered nor on an approved leave of absence are not in good standing.

8. A student who fails to hold their annual committee meetings is not in good standing and subject to academic probation. Any exceptions to this policy will have to be made in writing by the student's faculty sponsor (or EEB committee member) prior to the Progress Report deadline, and approved by GAC.

PROGRAM WITHDRAWAL & DISSMISSAL

1. Students not registered or not on leave for any given quarter must turn in the required paperwork the following quarter (summer excepted) or they will be dropped from the program.

2. Students who are formally withdrawing from the program without the successful completion of either a thesis or the qualifying examination must submit formal notification to EEB-GAC.

3. Ph.D. candidates who fail the oral portion of the exam s/he will be allowed one re-test. A second failure will result in the student being dismissed from the program. All dismissals will be reviewed by GAC.

4. Ph.D candidates who fail the Dissertation Proposal Defense Examination may be given the option of re-taking the examination with the same committee after appropriate preparation and guidance. If a student fails twice, they will be dismissed from the program. All dismissals will be reviewed by GAC. A written summary of the outcome is prepared by the chair, reviewed and signed by all committee members. A copy is provided for the student and a copy placed in their file. If explicitly invited to do so by the examination committee, students who fail the Dissertation Proposal Defense Examination have one quarter to produce a Master's thesis (on current research) or retake the examination.

5. Ph.D. candidates who fail to meet the department's dissertation standards will receive a written document from their committee, within one week of the final dissertation defense, specifying deficiencies and a timeline for correcting the deficiencies. If the dissertation ultimately does not gain the committee's approval the student will be dismissed from the program. All dismissals will be reviewed by GAC.

6. M.A. candidates who are unsuccessful in convincing the Thesis Committee on the merit of the proposed research project may be given the option modified the proposal until it is acceptable or proposed a new project. Except for unusual circumstances, the final, modified proposal must be completed no later than the beginning of Term 5 (Winter of Year 2). If the committee determines that the student cannot carry out Masters level research, the student will be dismissed. All dismissal cases will be reviewed by GAC.

7. M.A. candidates who fail to meet the department's thesis standards will receive a written document from their committee, within one week of the final thesis defense, specifying deficiencies and a timeline for correcting the deficiencies. If the thesis ultimately does not gain the committee's approval the student will be dismissed from the program. All dismissals will be reviewed by GAC.

8. A student whose academic progress has been found not satisfactory in two successive annual reviews will be subject to dismissal from the University.

BIOL 293 & 295 READING REQUIREMENT

Any student who started the program as early as fall of 2004 or later may use Biol 295 to fulfill a portion of their Readings in Ecology & Evolutionary Biology (Biol 293) requirements. Students who entered the program before Fall 2004 are bound by the original reading requirement (PhD = 4 Biol 293 courses, MA = 2 Biol 293 courses).

New Biology 293 PhD Degree Requirements (applies to Cohort 2004 and on):
All PhD candidates must complete two-Biol 293. In addition to the two-Biol 293 courses, each PhD student must take two additional Biol 293 courses, two-Biol 295 courses, or one of each before they advance to candidacy. The Biol 293 course requirement cannot be substituted by another other course

New Biology 293 MA Degree Requirements (applies to Cohort 2004 and on):
Master students must take one-Biol 293 and either an additional Biol 293 course, or Biol 295

SCHEDULING EXAMS & SEMINARS

Exams may only be given during an academic quarter in which the student is registered. Exams should NOT be scheduled on Fridays due to faculty and GAC time blocks or during the department seminar series. All exam scheduling and room reservations should be filtered through the Graduate Assistant.

Seminars may only be given during Fall, Winter or Spring quarter and during the department's Graduate Student Seminar time blocks (Monday in EMS A333, 3:30-4:30 p.m.; Friday in COH Conference, 4:30-5:30 p.m.). Seminar should be scheduled so all committee members attend and at least two weeks following an exam. Schedule your seminars through the Graduate Advisor. The title of your talk should be sent to Department Administrative Assistant for advertisement one week prior to the scheduled seminar time.

TEACHING ASSISTANTS & FUNDING REQUESTS

The Graduate Advisor will send out an email notice, four weeks before the end of each quarter, requesting each student to send their projected funding needs (GSR, TA, or Fellowship) for the upcoming quarter. The same notice is sent to each faculty sponsors. At this time students should confirm with their advisor as to what their anticipated funding will be for the coming quarter. Funding information is linked to TA allocations, course schedules, payroll and faculty accounting. Last minute funding changes can drastically hinder the department, and may delay TA assignment and delay paychecks. Therefore, it is extremely important that each student inform the Graduate Advisor of any funding changes throughout each quarter.

TA PERFORMANCE, POLICY & ALLOCATIONS

A student's TA performance is evaluated by the faculty member for whom they TA. Duties should take up no more than 20 hours a week and may include weekly office hours and sections, as well as grading, proctoring examination and preparation of course material for distribution (e.g. handouts, taping lectures). Graduate students are not expected or permitted to write narrative evaluations, although their

comments may be solicited and incorporated by the instructor. At the end of each academic year, the student and their graduate advisor will be surveyed about their teaching needs for the next academic year.

Assignments are made by balancing financial needs of students, past performance and assignments, requests of the instructor, and needs of the department. Although there is no guarantee, every effort is made to accommodate everyone's preference. Assignments are generally sent out two weeks before the end of the quarter. Please keep in mind that TA positions are an official employment position with the department. It is imperative that graduate students consider their request for a TA position as confirmation of acceptance and commitment. Please keep the Graduate Advisor informed of any funding changes as soon as possible. Last minute funding changes can drastically impact the department's enrollment and course support. If funding change occurs then the student will be held to their assignment until a replacement is found either through the department or the student.

GETTING STARTED

GENERAL ADVISING

The faculty advisor and EEB-GAC members are always available for advising. EEB-GAC should be consulted concerning procedural issues. The Graduate Assistant and Administrative Manager in the EE Biology office are available to help students with paperwork and administrative guidelines.

ENROLLING

Enrollment and other services are available through the Student Portal, MyUCSC - https://my.ucsc.edu. If you need technical support, including help with your student ID and password, please call (831) 459-1611 or email ais-help@ucsc.edu. If you need help enrolling in a class, call the enrollment Help Line at (831) 459-3939 or email enroll@ucsc.edu.

E-MAIL

All EE Biology graduate students will have an e-mail account set up for them by the time they arrive in fall quarter. The address for each student is generally last name@biology.ucsc.edu (i.e. jones@biology.ucsc.edu). The e-mail address for each graduate student is included in a departmental alias, EEBgrads@biology.ucsc.edu. The majority of communication with students from the EE Biology office will be done through e-mail; students need to develop the habit of checking their e-mail a minimum of 2-3 times weekly. Student should rollover their UCSC student email address into their biology email address via PBSCI Web Portal (http://bioweb.ucsc.edu). Please contact the Graduate Assistant for instructions.

MAILBOXES

A mailbox will be assigned to each first year student in mailroom associated with his/her lab (either EMS or COH). Student mail is directed to the laboratory mailbox. All campus mail addressed to the student will be delivered to the appropriate location. The student may also use that address for outside mail related to their student career. The student should use their home address for personal mail, bills, etc.

OFFICE SUPPLIES

Graduate students are responsible for purchasing their own office supplies for use in classes. The EEB Office does not provide these supplies. However, if the student is serving as a teaching assistant (TA) for a course they can obtain the necessary supplies from the EE Biology office in order to perform their TA duties. Examples of the types of supplies available to them are: overhead transparencies and markers for discussion sections, pens to use in correcting papers, paper for documentation. If the student is working with a faculty member on a research grant, they should check with that faculty member to make arrangements for supplies.

PHOTOCOPYING

There are photocopiers available on the third and fourth floors of EMS and the work area in COH for instructional and personal copying. A specific card is issued to the instructor for each course. If a student needs to photocopy for a course in their capacity as a Teaching Assistant, they should make arrangements with the instructor for use of the card. If a student is photocopying for the research of a

faculty member, they need to use the card assigned to that individual. The Department is unable to provide photocopying without charge for students' own class work copying and or other personal matters.

DEPARTMENTAL VEHICLE USEAGE

Departmental vehicles, located on campus and at the Long Marine Lab, are for multiple passenger use and not for individual student research purposes. Students may not use these vehicles to move their own research equipment, travel to research sites, or for personal use. Please contact your faculty sponsor if you are in need of a vehicle for research purposes.

FINANCIAL SUPPORT

The Department supports graduates students with GSRships, TAships and a limited number of fellowships. It is the responsibility of the advisor and student to garner summer support, where possible. Students are strongly encouraged to secure independent support during their entire academic career. Students receiving summer fellowships are expected to register for five units of Independent Studies/Thesis Research each summer.

PAYROLL INFORMATION

Paychecks for Teaching Assistants, Graduate Student Researcher, Fellowship recipients and Financial Aid are disbursed through the Student Business Services (831- 459-5122) or the Physical & Biological Sciences (PBSCI) Accounts Payable Office (831- 459-2662).

- Student Business Services is responsible for financial aid, fellowship and scholarship checks. SBS sends checks to your local or permanent addresses, depending on the funding classification and student account.

- PBSCI Accounts Payable distributes your Teaching Assistant (TA) and Graduate Student Research (GSR) checks to your local address, unless your account is set up as direct deposit.

Both offices use the mailing address information indicated in your student portal, therefore it is extremely important to keep your student portal information up to date on a quarterly basis.

TAXABLE SCHOLARSHIPS & FELLOWSHIPS

Most financial aid grants, scholarships and fellowships awarded from the university and outside sources are taxable, with the exception of amounts used to pay for:

1. Tuition and fees required for enrollment or attendance at the university
2. Books, supplies, and equipment required for classes (not field research)

You must pay taxes on any part of a scholarship, fellowship or even a tuition reduction that can be attributed to any teaching, research or other services that you have performed, are performing or will perform (regardless of if the service is required for your degree). In addition, if you receive money for room and board, travel expenses, research expenses, clerical help or non-required equipment and supplies, all that money is considered taxable income. These items are termed "incidental expenses"

because the item(s) are not required for enrollment in or attendance at your university. Incidental expenses must be reported as taxable income, whether or not you receive a W-2.

If you are not sure if your scholarship or fellowship is tax-free then contact the grantor or check with the Financial Aide Office (831-459-2963). Specific questions regarding education tax incentives and personal taxes should be addressed to the Internal Revenue Services, www.irs.gov.

The Graduate Student Association holds an annual graduate student tax workshop to assist you with tax questions. Additional information regarding taxed fellowships is available through the Graduate Division.

You are responsible for withholding your own taxes (federal and state) on the taxable portions of your grants, scholarships, fee reductions and fellowships.

CONTACT INFORMATION (459-xxxx)

Graduate Advisor, Ashley Vizurraga	x-2193
Department Manager, Susan Thuringer	x-4715
Department Chair, Pete Raimondi	x-5674
Graduate Representative, Grant Pogson	x-5122
Graduate Division Admin Asst.	x-4975
Registrar Office	x-4412
Student Business Services	x-5221
Financial Aid, Francie Pena	x-4393

CURRENT COMMITTEE MEMBERS

Graduate Advisory Committee:
Grant Pogson (Chair), Laurel Fox, Terrie Williams and Giacomo Bernardi

Graduate Student Representatives:
Samantha Simmons and Stacy Jupiter

Graduate Student Committee on Diversity Enhancement:
Marina Ramon, Yvette Alva, Dai Shizuka, Samantha Simmons and Stacy Jupiter

Committee on Diversity Enhancement:
Laurel Fox, Leo Ortiz and Pete Raimondi