TRUMAN YOUNG, CHAIR
Ecology Graduate Group

RE: Ecology Graduate Group Degree Requirements

Enclosed is a copy of the Ecology degree requirements as approved by Graduate Council on June 12, 2020. These degree requirements are now the official requirements for the Ecology Graduate Group and will be posted on the Office of Graduate Studies program webpage:

https://grad.ucdavis.edu/programs/gecl

Thank you for your efforts on behalf of graduate education.

Sincerely,

Carlee Arnett, Chair
Graduate Council

CC: Jasmine Bonite, Project/Policy Analyst, Graduate Studies
    Silvia Hillyer, Graduate Group Coordinator
    Felicia Murdoch, Policy Analyst
A. **Master’s Degree Requirements**

1. **Admissions Requirements:**

   Applicants for admission must meet the University of California minimum undergraduate GPA requirement for admission, must have a bachelor’s degree, submit three letters of recommendation, official transcripts, TOEFL or IELTS scores (if applicable), a resume or CV, personal and research statements, and the Office of Graduate Studies online application with fee by the stated deadline. Applicants must also identify a Confirmed Major Professor: a GGE faculty member in good standing must confirm that they accept the student into their laboratory, and will provide financial support, access to essential resources to complete their degree, as well as mentorship until the student completes their program of study. Applicants must choose an Area of Emphasis when submitting an application for admission.

   a) **Prerequisites:**

      • 1 course in introductory biology, BIS 1A, B or C, or equivalent if taken elsewhere

      • 1 course in introductory chemistry, CHE 2A and B or equivalent if taken elsewhere

      • 1 course in introductory physics, PHY 1A and B or equivalent; or 1 course in an upper division physical science listing physics as a prerequisite, ATM 110, ESP 110 150A, 152; HYD 122 or 141; SSC 100, 107, 208 or 209 or equivalent if taken elsewhere

      • 1 course in introductory calculus, MAT 16A or equivalent if taken elsewhere

      • 1 course in introductory statistics, STA 13 or equivalent if taken elsewhere

      • 1 course in introductory ecology, ESP 100 or EVE 101 or equivalent if taken elsewhere

   b) **Deficiencies:**

      Entrance deficiencies may be completed at a Community College, except for the upper division Introduction to Ecology course, which is normally only offered at a four year university. AP credit is also allowed with an acceptable score. Applicants who are offered admission with missing entrance requirements will be notified prior to matriculation. Once enrolled in the program, students will be required to complete missing entrance requirements in the first year of residence in the program. First year students will meet with their Guidance Committee to determine how the missing entrance requirements will be completed, and submit the plan for
approval during the first week of Winter Quarter. All courses must be taken for a letter grade.

2. **Masters Plan I (Thesis) or Plan II (Comprehensive Examination)**

**Plan I** requires that the student complete at least 30 units of course work, and a thesis. Course work may include a combination of upper division undergraduate and graduate level courses, but must include at least 12 units from graduate courses in the major field. Courses taken prior to admission to the program may be used to satisfy course work requirements, but may not be counted in the 30 unit requirement.

**Plan II** requires that the student complete 36 units of course work, and a comprehensive final examination (no thesis required). Course work may include a combination of upper division undergraduate and graduate level courses, but it must include at least 18 units from graduate courses in the major field and not more than 9 units of research (299 or equivalent) may be used to satisfy the 18-unit requirement. Courses taken prior to admission to the program may be used to satisfy course work requirements, but may not be counted in the 36 unit requirement.

3. **Course Requirements (Plan I: 30 units min; Plan II: 36 units min)**

   **a) Core Course Requirements (22-28 units)**
   All students are required to complete these courses, substitutions are not allowed except for equivalent courses taken elsewhere that are approved by the Guidance Committee.
   
   - Principles of Ecology, ECL 200 A and B: 5 units each
   - Evolution, EVE 100 (or equivalent if taken elsewhere): 4 units
   - Ecology 290, student participatory seminar; one is required I: variable units
   - Field Course Requirement: One of the following courses: ESP 123, ESP 124, ECL 225 (4, 10 and 4 units, respectively) or equivalent if taken elsewhere.
   - Ecology and Evolution Seminar Series, ECL 296, taken each quarter of the first year in the program: 1 unit each, 3 total

   **b) Area of Emphasis (AOE) Core Course Requirements (3-8 units)** Students complete the core course requirement according to the Area of Emphasis that they have chosen at the time of admission.

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<thead>
<tr>
<th>Area of Emphasis</th>
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<th>Units</th>
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<td>Conservation Ecology</td>
<td>ECL 208</td>
<td>4</td>
</tr>
<tr>
<td>Ecological Genomics &amp; Genetics</td>
<td>ECL 242 (or equivalent if taken in last 3 years)</td>
<td>3</td>
</tr>
<tr>
<td>Course Area</td>
<td>Course Code(s)</td>
<td>Units</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>---------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Ecosystems &amp; Landscape Ecology</td>
<td>ECL 219 or PLS 163</td>
<td>4</td>
</tr>
<tr>
<td>Ecotoxicology &amp; Physiological Ecology</td>
<td>WFC 230 or ETX 240</td>
<td>4/3</td>
</tr>
<tr>
<td>Environmental Policy &amp; Human Ecology</td>
<td>EPHE Sponsored ECL 290 or 298</td>
<td>1-3</td>
</tr>
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<td>Integrative Ecology</td>
<td>One course from the ECL catalogue or courses agreed upon by the AoE advisor</td>
<td>1-4</td>
</tr>
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<td>Marine Ecology</td>
<td>ECL 214</td>
<td>3</td>
</tr>
<tr>
<td>Restoration Ecology</td>
<td>ENH 160 if no previous restoration course, or RE sponsored ECL 290</td>
<td>1-3</td>
</tr>
</tbody>
</table>

c) Plan I Students: Area of Strength Coursework (6-8 units)

Plan I and II: In addition to the entrance requirements, core courses and Area of Emphasis course work, students desiring a master’s degree must complete a designated Area of Strength. An area of strength is defined as any sub-discipline within ecology and is subject to approval by the guidance committee and the program chair. The designated area of strength may be the same as the Area of Emphasis. This area of strength must be supported by two courses. Courses to support an area of strength may be either graduate level or upper division undergraduate level courses with at least one course at the graduate level. Courses taken at other institutions may qualify to demonstrate strength, as deemed appropriate by the guidance committee.

d) Additional Electives

Students may need to complete additional coursework to meet the 30 unit (Plan I) or 36 unit (Plan II) requirements. Electives are chosen in consultation with the adviser.

e) Summary

There is a minimum requirement of 30 units (Plan I) or 36 units (Plan II), which includes:

- Core courses: 22-28 units
- Area of Emphasis core courses: 3-8 units
- Plan I Area of Strength courses: 6-8 units
- Additional electives: as needed

All coursework must be approved by the GGE Guidance Committee and the Graduate Adviser. Should a student elect to change their Area of Emphasis (AOE) within the program they must seek approval of this change. The change of AOE must be approved by: the major professor, the current AOE Chair, the proposed AOE Chair and the GGE Chair. Per UC regulations, student cannot enroll in more
than 12 units of graduate coursework (200 level) or more than 16 units of combined undergraduate and graduate level coursework (100 & 200 level) per quarter.

4. **Special Requirements:** n/a

5. **Committees:**

   a. **Admissions Committee:**

      The GGE Admissions Committee is composed of a Chair (the GGE Vice-Chair is automatically the Chair of the GGE Admissions Committee), three additional GGE faculty members, and a student representative from the Ecology Graduate Student Association. The GGE Admissions Committee will advise the GGE Executive Committee about setting the deadline for applications for admission as well as any other policy recommendations pertinent to admissions.

      Applications will be reviewed in the following manner: 1) A preliminary review will be conducted by the GGE support staff in order to screen out and decline applicants that do not meet the Office of Graduate Studies minimum academic requirements. 2) A randomly chosen group of 2 or more faculty members and 1 or more students will provide ad hoc application reviews. The ranked scores from the ad hoc admissions reviews are summarized and forwarded to the Area of Emphasis Admissions Committee. 3) The Area of Emphasis admissions committee will then make recommendations for admission to the GGE Chair of Admissions based on ad hoc reviews and faculty interest in individual students. The GGE Chair of Admissions forwards a recommendation for or against admission to the Dean of Graduate Studies for final approval of admission. Notification of admissions decisions will be sent by both Graduate Studies and the Graduate Group. The admissions process is restricted to the single Graduate Studies application deadline.

   b. **Guidance Committee:**

      The Guidance Committee for MS Plan I and II students will be composed of the Major Professor and the Area of Emphasis Adviser (see section 6 for an explanation of these positions). The GC will work with the student to develop course work requirements, thesis development (Plan I) and MS examination (Plan II). Students are required to complete the guidance committee report by the end of their first quarter of residence in the program. A minimum of 12 units must be taken each quarter, which may be made up of required courses and 299’s.

   c. **MS Plan I: Thesis Committee:**

      The thesis committee will consist of the major professor and two other faculty members. Two thesis committee members must be selected from the graduate group faculty. A single outside member may be added to the thesis committee with permission of the Graduate Chair, or be represented as an extra committee member.
The thesis committee will guide the student in the design and completion of the proposed research project appropriate for the Masters’ level.

The thesis committee will be approved by the GGE Graduate Adviser and the Dean of Graduate Studies when the student files for advancement to candidacy. The thesis committee will conform to the Graduate Council guidelines. External Committee members are allowed with the approval of the GGE Graduate Adviser and the Dean of Graduate Studies. Students must complete the approval process set by the Graduate Council for external committee members. Thesis committee nominations are submitted to the Office of Graduate Studies for formal appointment in accordance with Graduate Council policy. The thesis committee determines if the thesis is acceptable and if it is not, what conditions must be satisfied to make it acceptable.

d. **MS Plan II Comprehensive Oral Examination Committee:**

Three faculty examiners are nominated by the student, with guidance from the Guidance Committee. Students must provide the slate of nominees to the GGE office no later than 60 days from the proposed date of the examination. No more than one non-GGE faculty member may serve on the examination Committee. External Committee members are allowed with the approval of the GGE Graduate Adviser. Final approval of examination topics rests with the chair of the Graduate Group in Ecology.

The faculty members serving on the examination Committee are expected to determine the quality of the performance of the candidate on all parts of the examination and not solely for the section covered by the examiner.

6. **Advising and Mentoring:**

The primary responsibility for advising and mentoring graduate students will take place via the Major Professor and their respective laboratory group. The student’s Guidance Committee members also share responsibility for mentoring. Faculty mentors should follow and adhere to: the Graduate Council Mentorship Guidelines, the Ecology Graduate Group Mentorship Guidelines, and the UC Davis Principles of Community.

Students may also seek advice outside of their laboratory group from their AOE Chair or Adviser, the GGE Graduate Adviser, the GGE Ombudsperson, and the GGE Student Affairs Officer (SAO) as well as staff in the Office of Graduate Studies. The GGE Graduate Adviser and SAO, or any other GGE affiliate, may refer students with unusual or difficult needs to specialized campus resources when necessary or appropriate.

**GGGE Roles and Responsibilities are as follows:**

- **GGGE Chair:** monitors student progress, student support, programmatic advising and mentoring. The Chair is nominated by GGE faculty, elected by the
faculty, nominated by the Dean of Graduate Studies and approved by the Chancellor. The Chair is also a Master Graduate Adviser for all GGE students.

- **GGE Area of Emphasis Chair**: AOE programmatic oversight and the admissions process for the AOE. The AOE Chair is selected by the primary faculty in the AOE, and nominated to the GGE Executive Committee for approval. The AOE Chair serves the AOE faculty and students.

- **GGE Area of Emphasis Adviser**: provides students with guidance on how to complete GGE and AOE requirements. The AOE Adviser is selected by the primary faculty in the AOE, and nominated to the GGE Executive Committee for approval according to Graduate Council policy. The AOE Adviser serves the AOE faculty and students.

- **Major Professor**: primary responsibility for research advising and mentorship in order for students to complete degree requirements. Primary responsibility for student funding – both for personal and research support. The MP is the primary mentor for specific graduate students

- **Student Affairs Officer**: primary responsibility for student advising for admissions, fellowships/student support, guidance procedures, committee composition and student progress as it relates to completion of graduate degrees (time to degree). The SAO serves the faculty and students in the GGE.

### 7. Advancement to Candidacy:

MS students are eligible and expected to file for advancement to candidacy no later than their fourth quarter of residence, after completing at least half of their required coursework. The Candidacy for the Degree of Master form can be found online at: [http://www.gradstudies.ucdavis.edu/forms/](http://www.gradstudies.ucdavis.edu/forms/). A completed form includes a list of courses the student will take to complete degree requirements. If changes must be made to the student’s course plan after s/he has advanced to candidacy, the Graduate Adviser must recommend these changes to Graduate Studies. Students must have their Graduate Adviser and committee Chair sign the candidacy form before it can be submitted to Graduate Studies. If the candidacy is approved, the Office of Graduate Studies will send a copy to: the appropriate graduate staff person and the student; the Thesis Committee Chair will also receive a copy, if applicable. If the Office of Graduate Studies determines that a student is not eligible for advancement, the department and the student will be told the reasons for the application’s deferral. Some reasons for deferring an application include: grade point average below 3.0, outstanding “I” grades in required courses, or insufficient units.

### 8. Thesis and Comprehensive Examination Requirements

#### a) Thesis Requirements (Plan I students)

In recognition of the importance of a publication record for obtaining academic appointments, the GGE has elected to emphasize a format where chapters of the
thesis take the form of individual publishable papers. Typical expectations are a minimum of at least one manuscript paper for the MS thesis. Co-authors are allowed with the approval of the thesis committee. Otherwise, the thesis should conform to any existing guidelines of Graduate Council and Graduate Studies.

For the thesis to be acceptable for the degree, all members must sign the title page certifying that the student has completed the thesis to the committees’ satisfaction. In cases where the committee members cannot reach a unanimous decision but a majority is favorable, the majority and minority will report their separate opinions on the merit of the thesis to the Graduate Adviser. The Graduate Adviser will make a recommendation to be forwarded to the Dean of Graduate Studies for a final decision. If the thesis is regarded by the committee as of less than acceptable quality the student will be given an appropriate period of time by the committee in which to improve the work. If, after that period of time, (usually a quarter or more), the thesis is still unacceptable to a majority of the committee, they may recommend that the student be disqualified from further graduate study.

b) Comprehensive Examination Requirements (Plan II students)

The examination Committee will determine if the candidate has adequate knowledge of the subject areas to qualify for an MS degree through an oral examination. The examination is two hours in length and closed to visitors, except by permission of the chair of the examining Committee. The three examination topic areas must include Principles of Ecology and Research Methods/Quantitative Skills. Non-GGE faculty members may not be examiners in either the Principles of Ecology or Research Methods/Quantitative Skills exam areas.

Outcomes: The performance required for a 'pass' for the MS comprehensive exam is the unanimous consent of the entire committee (or 3 faculty members). “Not pass” is specified when the committee in charge does not feel that the candidate's performance meets the standard for the field. A “not pass” judgment requires the approval of the Graduate Adviser for a retake. Students taking the examination a second time have only the pass and fail options. Evaluation as a “fail” at either the first or second exam means that the student will be recommended for disqualification from further graduate study in the program. The student has the right to appeal the decision.

9. Normative Time to Degree

For Plan I students, advancement to candidacy is expected in the 4th quarter, and completion of the thesis is expected by the end of the 9th quarter or before the beginning of the following Fall quarter. Entrance deficiencies may delay this timeline, but are not expected to delay more than 2 quarters.

For Plan II students, advancement to candidacy is expected in the 4th quarter, and completion of the comprehensive exam is expected by the end of the 6th quarter.
10. Time Line and Sequence of Events

Sample Study Plan:

<table>
<thead>
<tr>
<th>Year One</th>
<th>Year Two</th>
<th>Year Three: Plan I students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Winter</strong></td>
<td></td>
</tr>
<tr>
<td>ECL 200A GGE core (5)</td>
<td>ECL 200B GGE core (5)</td>
<td>complete research project, analyze data and write the thesis. Submit the thesis to the Office of Graduate Studies by the end of the academic year or prior to the start of the fall quarter.</td>
</tr>
<tr>
<td>ECL 296 seminar (1)</td>
<td>ECL 296 seminar (1)</td>
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<tr>
<td>EVE 100 Evolution (4) (elective coursework)</td>
<td>(AOE core courses) (elective coursework)</td>
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<tr>
<td><em>Submit an approved Guidance Committee report</em></td>
<td></td>
<td></td>
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<tr>
<td><strong>Spring</strong></td>
<td><strong>Winter</strong></td>
<td></td>
</tr>
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<td></td>
<td>ECL 296 seminar (1)</td>
<td></td>
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<td></td>
<td>ECL 290 seminar (var)</td>
<td></td>
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<tr>
<td></td>
<td>ESP 123 Field methods (4) (elective coursework)</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Year Two</strong></td>
<td><strong>Winter</strong></td>
<td></td>
</tr>
<tr>
<td>(statistics course) (thesis research and/or additional coursework)</td>
<td>(thesis research and/or additional coursework)</td>
<td></td>
</tr>
<tr>
<td><em>Submit the petition to Advance to Candidacy</em></td>
<td></td>
<td></td>
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<tr>
<td><strong>Spring</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(thesis research and/or additional coursework)</td>
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</tr>
<tr>
<td></td>
<td><em>Complete required coursework; Plan II: organize and take the MS final comprehensive oral examination</em></td>
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</table>

Entrance deficiencies may delay this timeline, but these are not expected to delay student progress by more than 2 quarters.

11. Sources of Funding:

Funding sources available to GGE students, for which the GGE has control, includes work study and block grant fellowship support. The GGE does not control any GSR or TA funding. Students should consult with individual faculty regarding research funding available to fund GSR appointments. Students should consult the GGE website for a listing of departments and deadlines for TA appointments.

12. PELP, In Absentia and Filing Fee Status:

Students must maintain appropriate student status at all times and to be eligible to complete the degree. Students will be required to follow PELP (Planned Education Leave), In Absentia (reduced fees when researching out of state), and Filing Fee Status guidelines and procedures as noted in the Graduate Student Guide: http://www.gradstudies.ucdavis.edu/publications
B. Degree Requirements for the PhD

The requirements below apply to students in both the U.C. Davis GGE and to those in the Joint-Doctoral Program in Ecology (JDPE) with San Diego State University (SDSU), except as otherwise noted. All faculty members of the JDPE are also members of the GGE.

1. Admissions Requirements:

Applicants for admission must meet the University of California minimum undergraduate GPA requirement for admission, must have a bachelor’s degree, submit three letters of recommendation, official transcripts, TOEFL or IELTS scores (if applicable), a resume or CV, personal and research statements, and the Office of Graduate Studies online application with fee by the stated deadline. Applicants must also identify a Confirmed Major Professor: a GGE faculty member in good standing must confirm that they accept the student into their laboratory, and will provide financial support, access to essential resources to complete their degree, as well as mentorship until the student completes their program of study. Applicants must choose an Area of Emphasis when submitting an application for admission.

a) Prerequisites:

• 1 course in introductory biology, BIS 1A, B or C, or equivalent if taken elsewhere

• 1 course in introductory chemistry, CHE 2A and B or equivalent if taken elsewhere

• 1 course in introductory physics, PHY 1A and B or equivalent; or 1 course in an upper division physical science listing physics as a prerequisite, ATM 110, ESP 110 150A, 152; HYD 122 or 141; SSC 100, 107, 208 or 209 or equivalent if taken elsewhere

• 1 course in introductory calculus, MAT 16A or equivalent if taken elsewhere

• 1 course in introductory statistics, STA 13 or equivalent if taken elsewhere

• 1 course in introductory ecology, ESP 100 or EVE 101 or equivalent if taken elsewhere

b) Deficiencies:

Entrance deficiencies may be completed at a Community College, except for the upper division Introduction to Ecology course, which is normally only offered at a four year university. AP credit is also allowed with an acceptable score. Applicants who are offered admission with missing entrance requirements will be notified prior to matriculation. Once enrolled in the program, students will be required to complete missing entrance requirements in the first year of residence in the program. First year students will meet with their Guidance Committee to determine
how the missing entrance requirements will be completed, and submit the plan for approval no later than the last work day in October. All courses must be taken for a letter grade.

2. **Dissertation Plan B**

Plan B specifies a three member (minimum) dissertation committee, an optional final oral examination (made on an individual student basis by the dissertation committee), and an exit seminar.

3. **Course Requirements – PhD (minimum 32 units)**

   a) **Core Course Requirements (minimum 24 units)**

   All students are required to complete these courses, substitutions are not allowed except for equivalent courses taken elsewhere that are approved by the Guidance Committee.

   * Principles of Ecology, ECL 200 A and B: 5 units each. *BIO 645/745 at SDSU for the JDPE*
   * Evolution, EVE 100 (or equivalent if taken elsewhere): 4 units. *Bio 352 or 509 at SDSU for the JDPE*
   * Ecology 290, ECL 290 student participatory seminar; 3 seminars are required: variable units. One SDSU seminar is allowed with pre-approval
   * Field Course Requirement: One of the following courses: ESP 123, ESP 124, ECL 225 (4, 10 and 4 units, respectively) or equivalent if taken elsewhere.
   * Ecology and Evolution Seminar Series, ECL 296, taken each quarter of the first year in residence: 1 unit each, 3 total. One SDSU seminar is allowed with preapproval

   b) **Area of Emphasis Core Course Requirement (3-8 units)**

   Students complete the core course requirement according to the Area of Emphasis that they have chosen at the time of admission.

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<td>Marine Ecology</td>
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<td>ENH 160 if no previous restoration course, or RE sponsored ECL 290</td>
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c) **Qualifying Examination Topic Preparation (no minimum units, but additional coursework may be needed)**

   - Research Methodology/Quantitative Skills primary coursework preparation: students must choose 2 courses to support the examination topic. These courses must be quantitative and involve statistics and/or modeling, but need not be statistics classes. Typical selections include PLS 205, 206, STA 205, ESP 121, ABT 180.

2. PhD students choose three additional optional examination topics. Students must choose 2 courses to support each examination topic, however upper division undergraduate courses may be used, as may upper division or graduate courses from other institutions. Examination topics should be broad areas, and are chosen in consultation with the Guidance Committee. Representative and suggested topics are presented below. These are examples and not meant to be exhaustive.

**Group A: Basic Ecology**
- Behavioral ecology
- Community ecology
- Ecosystem ecology
- Physiological ecology
- Allelochemics
- Biometeorology
- Ecosystem analysis
- Transport phenomena
- Human population ecology
- Evaluation of environmental policy
- Implementation of environmental policy
- Population ecology

**Group B: Applied Ecology**
- Agroecology
- Aquaculture and fisheries
- Aquatic ecology
- Pollution ecology
- Environmental policy in specific areas: e.g., conservation or energy
- Epidemiology
- Conservation ecology
- Ecotoxicology
- Resource management

**Group C: Subjects in which major universities might have departmental or group PhD programs, such as but not limited to:**
- Genetics
- Botany
- Soil Science
- Entomology
- Bacteriology
- Geology
- Mathematics
- Biochemistry
- Atmospheric science
- Physical oceanography
- Economics
- Anthropology
- Sociology
- Political Science
- Invertebrate zoology
d) Summary
PhD students take a minimum of 27 units*:

- Core courses: minimum 24 units
- Area of Emphasis core courses: 3-8 units
- Electives, as needed

*In addition, students must complete the QE Topic Preparation courses which may increase the total number of units required.

All coursework must be approved by the GGE Guidance Committee and the Graduate Adviser. Should a student elect to change his/her Area of Emphasis within the program they must seek approval of the change. The change of AOE must be approved by the students’ major professor, the current AOE Chair, the proposed AOE Chair and the GGE Chair. The student will be required to complete the new AOE core course if applicable. Per UC regulations, student cannot enroll in more than 12 units of graduate coursework (200 level) or more than 16 units of combined undergraduate and graduate level coursework (100 & 200 level) per quarter.

4. Special Requirements:
PhD students are required to present an exit seminar to the GGE faculty and students prior to submitting the dissertation to the Office of Graduate Studies.

Students in the Joint Doctoral Program in Ecology (JDPE) must be registered and enrolled at the UCD campus for at least three quarters.

5. Committees:

a. Admissions Committee:

The GGE Admissions Committee is composed of a Chair (the GGE Vice-Chair is automatically the Chair of this committee), three additional GGE faculty members, and a student representative from the Ecology Graduate Student Association. The GGE Admissions Committee will advise the GGE Executive Committee about setting the deadline for applications for admission as well as any other policy recommendations pertinent to admissions.

Applications will be reviewed in the following manner. 1) A preliminary review will be conducted by the GGE support staff in order to screen out and decline applicants that do not meet the Office of Graduate Studies minimum academic requirements. 2) A randomly chosen group of 2 or more faculty members and 1 or more students will provide ad hoc application reviews. The ranked scores from the ad hoc admissions reviews are summarized and forwarded to the Area of Emphasis Admissions Committee. 3) The Area of Emphasis admissions committee will then make recommendations for admission to the GGE Chair of Admissions based on ad hoc reviews and faculty interest in individual students. The GGE Chair of Admissions forwards a recommendation for or against admission to the Dean of Graduate Studies for final approval of admission. Notification of admissions decisions will be
sent by both Graduate Studies and the Graduate Group. The admissions process is restricted to the single Graduate Studies application deadline.

b. **Guidance Committee:**

The Guidance Committee (GC) for the PhD student will be composed of the Major Professor, the Area of Emphasis Adviser and a third GGE faculty member. Non-GGE members may not serve on the Guidance Committee. The GC will work with the student to develop course work requirements, examination topics and nomination of the qualifying examination committee. Full time students must register for a minimum of 12 units per quarter.

A research host on the UC Davis campus will serve as the third GC member for JDPE students.

Students are required to complete the guidance committee report by the end of their first quarter of residence in the program. Students are expected to meet with the guidance committee at least annually until the Qualifying Examination is taken, and also as necessary if revisions to the student’s academic plan are desired.

c. **Oral Qualifying Examination Committee (QE):**

In consultation with the Guidance Committee, a five person qualifying examination committee will be selected by the student for nomination, and approved by the GGE Graduate Adviser and the Dean of Graduate Studies. Students must provide the slate of nominees to the GGE office no later than 60 days from the proposed date of the QE. The QE Committee will conform to Graduate Council guidelines. No more than one non-GGE faculty member may serve on the QE Committee. Non-GGE faculty members may not be examiners in either the Principles of Ecology or Research Methods/Quantitative Skills exam areas. External Committee members are allowed with the approval of the GGE Graduate Adviser and the Dean of Graduate Studies.

JDPE students are not allowed to invite their UCD host to serve on their QE committee. The QE for JDPE students must also be approved by the Dean of the Graduate Division on the SDSU campus. JDPE QE committees must include 2 members from each campus.

d. **Dissertation Committees:**

Dissertation Committees will be composed of three members. The dissertation committee will be approved by the GGE Graduate Adviser and the Dean of Graduate Studies. The Major Professor will serve as Chair. The composition of the dissertation committee will conform to Graduate Council guidelines. No more than one non-GGE faculty member may serve on the Dissertation Committee. External

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1 GGE has been granted an exception to the policy requiring an outside/external to GGE faculty member to serve on QE committees; therefore, no outside/external member is required.
Committee members are allowed with the approval of the GGE Graduate Adviser and the Dean of Graduate Studies.

JDPE students must include at least one member from the UCD campus. The dissertation committee for JDPE students must also be approved by the Dean of the Graduate Division on the SDSU campus.

6. **Advising and Mentoring:**

The primary responsibility for advising and mentoring graduate students will take place via the Major Professor and their respective laboratory group. Faculty mentors should follow and adhere to the Graduate Council Mentorship Guidelines, the Ecology Graduate Group Mentorship Guidelines and the UC Davis Principles of Community.

Students may also seek advice outside of their laboratory group from their AOE Chair or Adviser, the GGE Graduate Adviser or Program Chair, the GGE Ombudsperson and the GGE Student Affairs Officer, and their committees (Guidance, QE, and Dissertation Committees) as well as staff in the Office of Graduate Studies. JDPE students may additionally consult with the JDPE coordinator and staff. The GGE Graduate Adviser and SAO, or any other GGE affiliate, may refer students with unusual or difficult needs to specialized campus resources when necessary or appropriate.

**GGE Roles and Responsibilities are as follows:**

- **GGE Chair:** monitors student progress, student support, programmatic advising and mentoring. The Chair is nominated by GGE faculty, elected by the faculty, nominated by the Dean of Graduate Studies and approved by the Chancellor. The Chair is also a Master Graduate Adviser for all GGE students.

- **GGE Area of Emphasis Chair:** AOE programmatic oversight and the admissions process for the AOE. The AOE Chair is selected by the primary faculty in the AOE, and nominated to the GGE Executive Committee for approval. The AOE Chair serves the AOE faculty and students.

- **GGE Area of Emphasis Adviser:** provides students with guidance on how to complete GGE and AOE requirements. The AOE Adviser is selected by the primary faculty in the AOE, and nominated to the GGE Executive Committee for approval according to Graduate Council policy. The AOE Adviser serves the AOE faculty and students.

- **Major Professor:** primary responsibility for research advising and mentorship in order for students to complete degree requirements. Primary responsibility for student funding – both for personal and research support. The MP is the primary mentor for specific graduate students.

- **Student Affairs Officer:** primary responsibility for student advising for admissions, fellowships/student support, guidance procedures, committee composition and student progress as it relates to completion of graduate degrees (time to degree). The SAO serves the faculty and students in the GGE.
7. **Advancement to Candidacy**

Before advancing to candidacy for a doctoral degree, a student must have satisfied all requirements set by the graduate program, must have maintained a minimum GPA of 3.0 in all coursework undertaken (except those courses graded S or U), and must have passed the Preliminary and Qualifying Examinations before committees appointed to administer that examination. Normally, students advance by the end of the 9th quarter; students must pass their QE by the end of the ninth quarter in order to remain eligible for academic appointments (TA, GSR, AI, etc.). The student must file the appropriate paperwork with the Office of Graduate Studies and pay the candidacy fee in order to be officially promoted to Ph.D. Candidacy.

8. **Preliminary Examination, Qualifying Examination, and Dissertation Requirements**

a) **Preliminary Exam**
The Preliminary Examination consists of a written exam on general principles of ecology. The written exam consists of the written final examinations of ECL 200A and 200B, and BIO 645/745 for JDPE students. These exams are graded by the course instructors. A letter grade of A+ on a question constitutes a high pass; A or A- a Pass; B+ or B a Low Pass; a B- grade or lower constitutes a No Pass for a question. The scores on individual questions are then averaged for an overall grade. Students will Pass the exam if their overall average is a Low Pass or higher and that they have a No Pass on no more than two exam questions. A grade of No Pass requires the student to retake the Preliminary Examination exam. Students will be allowed two subsequent tries at passing the exam. Failure to successfully complete the exam on the third try will initiate a progress review of the student to consider disqualification from the program.

b) **Qualifying Exam**

Upon receipt of a passing grade on the written Preliminary Examination (low pass or higher) and successful completion of all coursework, students form an oral Qualifying Examination committee. The Examination Chair must be a member of the GGE and a member of the Academic Senate. Only one member of the Examination can be a non GGE faculty member, or a non Academic Senate member. A non Academic Senate GGE member is exempt from this restriction. Non-GGE faculty members may not be examiners in either the Principles of Ecology or Research Methods/Quantitative Skills exam areas. The student's major professor cannot serve on the QE Committee. Nominees who are not members of the Graduate Group in Ecology will be subject to approval, on a case-by-case basis, by the GGE Chair and the Dean of Graduate Studies. In the event that an examiner is chosen who is not a UC faculty member (other than JDPE faculty), a Graduate Studies External Committee Member Nomination form and CV will have to be provided.

SDSU/JDPE students are required to include at least two oral examiners from the SDSU campus and two from the UC Davis campus. SDSU/JDPE students may not invite their UC Davis host/mentor to serve on the QE.
PhD students begin the process by meeting with the Guidance Committee to complete the Qualifying Examination Evaluation. Should the examination committee members change, a “Reconstitution” request must be approved by the GGE Adviser and submitted for approval to the Office of Graduate Studies prior to the examination. The proposed examination committee members need to be submitted to the GGE office no later than **60 days** prior to the anticipated date of examination.

Every Ph.D. student will be required to submit a written “Research Proposal” to the members of the QE committee no later than 14 days prior to the Examination date. The proposal will be 5 -20 pages (double spaced) in length not to exceed 5,000 words, written with one inch margins and 12 point font. It must include a literature review on the proposed research topic and a research design that will allow the testing of hypotheses of importance raised in the literature review. The research proposal must also include a 150 word lay summary of the student’s research project. Although the proposal is discussed in the exam, under no circumstances is the outcome of the qualifying examination to be determined strictly by the quality of the candidate’s research proposal. The examiners will use this document to help them determine the student’s ability to recognize worthwhile problems, assess current research, and formulate appropriate methods and plans of action. The proposal may be addressed during the QE by any examiner, but the research should not be the major focus of the QE.

It is the student's responsibility to find an examination date and time suitable for everyone, reserve a room, and send a notice of the exam's location, date, and time to all participants. The Qualifying Examination is three hours in length. The examination is closed to visitors, except by permission of the chair of the examining committee. Faculty serving on the examination are expected to determine the quality of the performance of the candidate on all parts of the examination (i.e., consideration of academic record, research proposal and examination topics) and not solely for the section covered by the examiner. Graduate Council has stipulated that, on the first attempt, the performance of any candidate can be evaluated as: 1) a pass; 2) a not pass; or, 3) a fail. Successful completion of this oral Qualifying Exam (pass) allows a candidate to advance to candidacy as per Graduate Council guidelines. Opinion may be divided, which requires the filing of both majority and minority reports with the Administrative Committee of the Graduate Council for final decision.

“Not pass” is specified when the committee in charge does not feel that the candidate's performance meets the standard for the field. Either the entire exam or sections may be reported as “not passed”. Retaking the examination may be subject to conditions specified by the committee, including course work, paper preparation, or additional research. The deadline by which these requirements must be completed is established at the time of the exam.

Students taking the examination a second time have only the pass and fail options. Evaluation as a “fail” at either the first or second attempts at the exam means that the student will be recommended to the Dean of Graduate Studies for
disqualification from further graduate study in the program. The student has the right to appeal the decision.

Satisfactory progress towards the dissertation and completing the dissertation itself are the only requirements of the candidate after successful completion of the Qualifying Examination. Satisfactory progress includes producing a dissertation proposal and having it approved by the Dissertation Committee within 6 months of passing the qualifying examination.

The format of dissertation proposal should follow the general format of the body of a National Science Foundation grant proposal, and consist of the following sections: (1) Specific aims, (2) Background and significance, (3) Preliminary studies, (4) Research design and methods, (5) References. Sections 1-4 should not exceed 15 single-spaced pages. All members of the dissertation committee will sign the cover page of the proposal once they have approved its content, and the student shall give a copy to the Ecology Student Coordinator. Failure to submit the dissertation proposal in a timely fashion may result in an 'unsatisfactory' progress report from the GGE Chair.

c) The Dissertation

Chapters of the dissertation take the form of individual publishable papers. Typical expectations are a minimum of three manuscript papers. The dissertation committee has authority to approve the inclusion of co-authored papers. The four opening parts of the dissertation are: title page, acknowledgements, abstract, and an overall introduction (presents and justifies the importance of the dissertation topic, includes an optional literature review, and shows how the themes of chapters relate). The chapters follow and should be organized as manuscripts that could be (or have been) submitted to the scientific literature. The dissertation closes with and overall summary, which is an over-arching discussion of the chapters. A Bibliography may follow or each chapter may include a section for 'Literature Cited' in that chapter. The dissertation committee is authorized to approve the appropriate content of the dissertation.

d) Exit Seminar

The exit seminar must be presented prior to submitting the dissertation. It is recommended that the dissertation committee attend. However, it is required that the candidate be sure that the chair is in attendance in order to obtain documentation that this requirement has been satisfied. A certification form, signed by the dissertation chair, must be submitted to the GGE graduate program coordinator before scheduling the appointment for submission of the dissertation to the Office of Graduate Studies.

9. Normative Time and Time to Degree

Normative time to degree is 6 years. However, note that the Graduate Council has set a maximum of four years after completion of the qualifying examination to complete all degree requirements, failing which a student will go on academic
probation for one year. At the end of the probationary period if all the degree requirements are not satisfied, the student will be recommended for disqualification for unsatisfactory progress.

10. **Time Line and Sequence of Events:**

   **Sample Study Plan:**

<table>
<thead>
<tr>
<th>Year One</th>
<th>Year Two</th>
<th>Year Three: Pass QE, Form Dissertation Committee, prepare Dissertation Proposal, submit approved proposal to Ecology administration; perform research.</th>
<th>Years Four-Six: perform research; write dissertation and submit to Dissertation Committee. Give exit seminar and submit finalized proposal to Graduate Studies.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Winter</strong></td>
<td><strong>Spring</strong></td>
<td></td>
</tr>
<tr>
<td>ECL 200A GGE core (5)</td>
<td>ECL 200B GGE core (5)</td>
<td>Course Name (x units)</td>
<td></td>
</tr>
<tr>
<td>ECL 296 seminar (1)</td>
<td>ECL 296 seminar (1)</td>
<td>ECL 290 seminar (variable)</td>
<td></td>
</tr>
<tr>
<td>EVE 100 Evolution (4)</td>
<td>(AOE core course)</td>
<td>ECL 290 seminar (variable)</td>
<td>*Complete required coursework; establish QE committee; prepare Research Proposal.</td>
</tr>
<tr>
<td>(elective coursework)</td>
<td>(elective coursework)</td>
<td>(thesis research and/or additional coursework)</td>
<td></td>
</tr>
<tr>
<td><em>Submit an approved Guidance Committee report</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year Three: Pass QE, Form Dissertation Committee, prepare Dissertation Proposal, submit approved proposal to Ecology administration; perform research.</td>
<td></td>
<td></td>
<td>Students should consult with individual faculty regarding research funding available to fund GSR appointments. Students should consult the GGE website for a listing of departments and deadlines for TA appointments. JDPE students should consult with their major professor and the JDPE coordinator regarding funding.</td>
</tr>
</tbody>
</table>

11. **Sources of Funding:**

   Funding sources available to GGE students, for which the GGE has control, includes work study and Graduate Group in Ecology Fellowship support provided through Graduate Studies and the CAES Dean’s Office. The GGE does not control any GSR or TA funding except for one quarter of GSR support provided by the JDPE. Students should consult with individual faculty regarding research funding available to fund GSR appointments. Students should consult the GGE website for a listing of departments and deadlines for TA appointments. JDPE students should consult with their major professor and the JDPE coordinator regarding funding.
12. PELP, In Absentia, and Filing Fee Status:

Information about PELP (Planned Educational Leave), In Absentia (reduced fees when researching out of state), and Filing Fee status can be found in the Graduate Student Guide: http://www.gradstudies.ucdavis.edu/publications/

13. Leaving the Program Prior to Completion of the PhD Requirements.

Should a student leave the program prior to completing the requirements for the PhD, they may still be eligible to receive the Masters if they have fulfilled all the requirements (see Masters section). Students can use the Change of Degree Objective form available from the Registrar’s Office: http://registrar.ucdavis.edu/PDFFiles/D065PetitionForChangeOfGraduateMajor.pdf