

INTRODUCTORY HANDBOOK

for the Doctoral Program in Ecology and Evolutionary Biology



University of Texas at El Paso
Department of Biological Sciences
9/1/2020

I. Doctoral Program Details

A. Advisors, Registration, GPA, Standings and Stipends

Doctoral Students are required to consult with their faculty advisors each semester for planning of their course of study and registration. The Doctoral Advisor will advise all incoming and enrolled graduate students. In addition, within the first semester students should select or be assigned a faculty mentor in their specialized area of study. Together, these advisors will oversee the trainees program of study. Upon admission to the program, trainees will choose a dissertation advisor and work with that person to assemble a dissertation committee. This Dissertation Committee will oversee the proposal, research and dissertation portions of the trainee's program. In addition to these advisors, there is also a faculty member elected as Ombudsman for graduate students.

Full time doctoral students must register for nine doctoral-level credit hours (see below) in each of the fall and spring semesters (summer registration may be required). Dates and times for graduate registration are listed in each semester's course schedule. Each student must maintain a minimum GPA of 3.0 to remain in good academic standing. To receive a stipend as Assistant Instructor (AI), the trainee must be enrolled full time and be in good standing.

B. Course Requirements

Courses required for Doctoral Students include those from three categories: Required, Free Electives, and Doctoral Research.

1. Required Courses will be offered at least every two years. Each student must take all four core courses and three seminars (at least 2 BIOL 5130, one additional B5130/ ESE 6107). For full time students, these core courses should be completed in the first two years of the program. These courses include:

BIOL 5327	Advances in Ecological Theory
BIOL 5322	Advances in Evolutionary Theory
BIOL 5328	Biostatistics
BIOL 6308	Research Funding and Professional Development
BIOL 5130	Biology Seminars (students must take at least three seminar courses)

2. Free Electives will be offered at least every three years. In addition to the credit hours required above, each doctoral student must take additional credit hours of free electives or excess menu electives to total a **minimum of 15 hours**. A partial list of free electives includes (the full list is available on the website):

BIOL 5301	Selected Advanced Topics
BIOL 5305	Herpetology
BIOL 5313	Biogeography
BIOL 5316	Biosystematics
BIOL 5346	Ecosystem toxicology
BIOL 5351	Bioinformatics I
BIOL 5352	Bioinformatics II
BIOL 5360	Limnology
BIOL 6312	Biodiversity
ESCI 5315	Topics in Environmental Science

Up to 24 hours of graduate level course work from an earned Master's degree may be considered for transfer to the doctoral degree. To apply for transfer of credit, submit a list of the courses, as well as the official course descriptions, to the Doctoral Advisor. For credit to be transferred, the graduate committee must find that the course is an appropriate substitution for the degree program and that it was successfully completed by the student. Most often, any transferred courses will be listed under the "Free Electives" portion of the program of study.

3. Doctoral Research. Students must accumulate 27 hours of doctoral level research (BIOL 6X90) plus 6 hours of dissertation (BIOL 6398 and BIOL 6399) after admission to candidacy.

C. Examinations

The **Qualifying exam** should be taken before the end of the second year.

The exam will consist of a written section as well as an oral exam administered by the students committee. In addition, for the oral portion of the exam the student should select a faculty member to be a non-examining member of the panel and to be an advocate for the student.

The written portion of the Qualifying exam is taken prior to defense of the dissertation research project. The committee will prepare 4 questions; the student will choose 2 of the 4 questions to address in the written oral. The student will be responsible for all questions during the oral exam. The written exam will be overseen by a member of the committee other than the mentor. The student will have 2 weeks to complete the written exam. After successfully completing the written portion, the student will be allowed to continue to the oral defense of the proposed research. Effective October 1, 2012, students will have a maximum of 8 weeks to complete the proposal defense and oral examination upon passing the written exam. The oral defense is open to the public. Notification must be distributed to the faculty and a copy of the dissertation research proposal placed in the Departmental office one week prior to the defense. Immediately following the research proposal defense, an oral examination will be administered by the committee. If the examination is not successful, the student may petition for a second examination at the discretion of committee and the Graduate Program Director.

A Dissertation Research Proposal is part of the Qualifying Examination.

Each student will write a detailed Dissertation Proposal, including a review of the field, statement of hypothesis and/or key science questions and specific aims, a detailed description of the approach and methods to be used, a timeline and management plan, and all appropriate references. This proposal must be approved by all members of the student's Dissertation Committee and must be made available for comments by the Department of Biological Sciences Graduate Faculty. The Dissertation Committee will be responsible for administering the written and oral examination portion of the Qualifying exam. The written and oral portions of the exam will be coordinated by a member of the Dissertation Committee other than the Dissertation Advisor. Students will continue to make timely progress on their dissertation work, with annual submission of results for review by the Dissertation Committee.

D. Time line for Biology Doctoral Degree

The requirements for awarding of a Doctor of Philosophy Degree are:

- Successful completion of required course work

- Successful defense of dissertation proposal
- Completion of qualifying exams
- An article must be submitted and accepted for review in a peer-reviewed journal with a Journal Impact Factor greater than 1.0.
- Successful completion and defense of dissertation

In order to encourage timely completion of the degree, the following time constraints are enforced for full time students in this program:

At the start of the program, the Graduate Advisor and/or the Faculty Dissertation Advisor will aid the student in designing a course of study tailored to the trainee's interests. The trainee must form a Dissertation Committee. The Dissertation Committee consists of a Chair and/or Co-Chair from the Tenured/Tenure-Track faculty of the Department of Biological Sciences Graduate Faculty plus three additional members of the Graduate Faculty, one of whom must be from outside of the Biological Sciences Department. This committee will guide the student through their doctoral research and writing of their dissertation and will be responsible for final approval of the written dissertation.

To be considered a full-time student, students must register for nine hours of courses both in the Fall and Spring semesters and register for three hours of course work for the Summer semester.

By the sixth semester, and preferably by the end of the second year, students should have completed ALL CORE courses for the doctoral program. NOTE that some of the core courses are offered only once every two years and must be taken in the year they are offered!

After completion of core courses but no later than the end of the third year, students must have successfully completed the Qualifying Exams and have advanced to candidacy.

Dissertation Defense (Final Oral Dissertation Defense). To complete the doctoral program, each student must successfully defend their Doctoral Dissertation based on their original research. When the student and their committee agree that research progress has been sufficient, a formal written note from the mentor and signed by all committee members must be submitted to the Graduate Program Director indicating that the student has permission to write the dissertation. After the dissertation is written and approved by the committee, the student may schedule the oral defense of the dissertation. AT LEAST ONE WEEK PRIOR TO THAT DATE, a final complete copy of the dissertation will be given to each member of the committee AND a copy will also be placed in the Departmental office for review by interested faculty. Following the public defense, the committee will meet privately with the student to evaluate the dissertation and defense and will determine whether to accept, accept with modifications (any needed corrections will be provided to the chair and student in writing within 48 hours), or to reject the dissertation. If a dissertation is accepted with modifications, the committee should specify whether the final version needs a full review by the committee or only by the Chair of the Committee or designate.

E. Summary of Expected Progress towards the Ph.D. Degree:

- 1. Formation of Committee:** In consultation with the dissertation advisor, the student should form their committee no later than at the end of the first year.
- 2. Annual Committee meeting:** Starting in the first year and each subsequent year, the student is to have a formal meeting with the committee to review progress and set future milestones. There are two

mandatory forms that must be filed with the Dean of Science: one documenting the meeting and the students' progress to date and the Milestones Agreement.

- 3. Course Work:** Course work will be completed by the sixth semester of the student's program of study. Your degree plan will be filed with the Graduate School upon reaching candidacy (see below).
- 4. The Qualifying Examination and Dissertation Proposal:** This exam will be taken as soon as feasible after the completion of the core courses and relevant elective coursework, and should be completed by the beginning of the third year in the program.
- 5. Advancement to Candidacy:** After passing the written qualifying exam, defending the dissertation proposal, and successfully completing the oral exam, students are advanced to candidacy. Students must formally meet with the Dissertation Committee once a year at which time a progress report will be presented. Soon thereafter, the Committee Chair must submit a report on the meeting to the Director of the Graduate Program in Biology.
- 6. Completion of Ph.D. Program:** Ideally, students should complete the Ph.D. requirements (including dissertation) by the fourth year, but no later than the sixth year in the program. Permission for extension of Ph.D. timeline beyond the sixth year must be approved by the Trainee's Dissertation Committee and the Biological Sciences Graduate Program Director. **ALL TRAINEES SHOULD BE AWARE THAT THE STATE DOES NOT PERMIT STATE FUNDING (i.e., Teaching Assistantships or Assistant Instructorships) AFTER COMPLETION OF 99 CREDIT HOURS.**

F. Exceptions to the Guidelines

Exceptions to guidelines require the specific approval of the Doctoral Committee, the Director of the Graduate Program in Biological Sciences and the Graduate School. Candidates requesting exceptions will be required to fully justify that request.

G. PhD Degree Plan Form

You and your dissertation advisor will prepare a *Preliminary Degree Plan (PDP)* by your second semester in the program. The Preliminary Degree Plan form lists the tentative courses you will take for the duration of your time as a PhD student and specifies the members of your dissertation committee. Note that the courses and the committee members suggested in your PDP can be changed later, but only with approval of your Dissertation Advisor and the Graduate Advisor. The Degree Plan form allows you to identify it as a "Preliminary", "Revised" or "Final" Degree Plan. Please download the most recent version of this form from:
(<http://academics.utep.edu/Default.aspx?tabid=45219>).

THE UNIVERSITY OF TEXAS AT EL PASO
Graduate School
El Paso, Texas 79936-0587

PROGRAM OF STUDY FOR THE DOCTORAL PROGRAM IN ECOLOGY AND EVOLUTIONARY BIOLOGY

STUDENT: _____ STUDENT NUMBER: _____
 DEPARTMENT: **Biological Sciences** MAJOR: Ecology and Evolutionary Biology
 [Minor not applicable]

DATE OF ACCEPTANCE INTO PROGRAM: _____
 TERM OF FIRST COURSE USED TOWARDS DEGREE: _____
 This program has a **DISSERTATION REQUIREMENT**.

INITIAL FACULTY MENTOR: _____

REQUIRED CORE COURSES:

		<u>DATE / GRADE</u>
BIOL 5237	Adv. Ecological Theory	_____
BIOL 5322	Adv. Evolutionary Theory	_____
BIOL 5328	Biostatistics	_____
BIOL 5130/ESE 6107	[Seminar]	_____
BIOL 5130	[Seminar]	_____
BIOL 5130	[Seminar]	_____
BIOL 6308	Research Funding and Professional Development	_____

OTHER APPROVED ELECTIVES [to total 15 hrs and may include transfer credits from a Master of Science degree program, with Departmental approval]:

<u>Course Number and Title</u>	<u>DATE / GRADE / Transfer</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

DISSERTATION RESEARCH [total of 27 hrs]

- BIOL 6190 Independent Research
- BIOL 6290 Independent Research
- BIOL 6390 Independent Research
- BIOL 6490 Independent Research
- BIOL 6590 Independent Research
- BIOL 6690 Independent Research

DISSERTATION [total of 6 hrs]

- BIOL 6398 Dissertation, first semester
- BIOL 6399 Dissertation, continuing semesters

QUALIFYING EXAMS: _____
(DATE) (OUTCOME)

DISSERTATION COMMITTEE

CHAIR: _____

MEMBER: _____

MEMBER: _____

OUTSIDE MEMBER: _____

MEMBER [optional]: _____

DISSERTATION PROPOSAL

TITLE:

DATE APPROVED:

SUCCESSFUL DISSERTATION DEFENSE DATE:

APPROVALS [Required for all changes and updates]:

GRADUATE DOCTORAL ADVISOR / DATE

DIRECTOR OF GRADUATE STUDENT SERVICES / DATE

Students are urged to study the general requirements for graduate degrees stated in the Graduate Studies Catalog. Students are responsible for checking their own progress to be sure they meet these requirements. Any deviation from the above course schedule must have the approval of the Department Doctoral Graduate Advisor and the Director of Graduate Student Services. The Preliminary Program of Study should include all course work required for the graduate degree. It does not constitute a waiver of any requirements for the degree as set by the Graduate School or Department Program requirements beyond the minimum required for the degree that are listed above.

SIGNATURE OF STUDENT / DATE

Appendix A: Current Administrative Positions and Contact Numbers

Chair, Department of Biology:

Dr. Bruce Cushing Bioscience 2.118 747-8894

Chair, Biology Graduate Faculty:

TBA

Director of Graduate Studies:

Dr. Renato Aguilera Bioscience 4.144 747-6852

Director of EEB PhD Program

Dr. Elizabeth Walsh Biology 218 747-5421

Doctoral Advisor:

Dr. Elizabeth Walsh Biology 218 747-5421

Masters Advisor & Ombudsman:

Dr. Jerry D. Johnson Biology 205 747-6999

Building Manager:

Enrique Martinez Bioscience 2.158 747-6881

Victor Garcia Biology 115 747-5986

Biology Office Staff:

Annette Vasquez Bioscience 2.138 747-7478

Table 1. Time line for Doctoral Candidates.

Degree Timeline	Dissertation Requirements	Course Requirements
Year 1	<p>By the end of the first semester, you should:</p> <ul style="list-style-type: none"> • Identify your mentor and form your thesis committee. • Complete Preliminary Degree Plan <p>By the end of you first year, you should have met with your committee at least once.</p>	<p>Complete core courses (if available) and any deficiencies (as required)</p> <p>Take seminar class both semesters</p>
Year 2 -3	<p>Qualifying Exam (completed by start of Year 3) <u>Suggested Timeline</u> After you have completed all your core coursework and relevant electives, and have written your research proposal, you must allow <u>at least</u> 4 weeks for the following process (please note, the days are an example only of an ideal timeline, the process may take longer depending on the availability of your committee members):</p> <p><u>Day 1:</u> Your advisor or person running the exam will send the proposal to the committee and request qualifying questions from your committee.</p> <p><u>Day 7:</u> You will be provided with 4 questions by the coordinator of you qualifier (not your advisor). Two questions must be answered formally (i.e. written), while the other 2 will be part of oral exam following proposal defense. Written answers will be limited to 5 single spaced pages per question.</p> <p><u>Day 14-21:</u> After receiving the questions, You will have 7-14 days to submit the 2 written answers to the member of your committee responsible for coordinating your Qualifier. Your committee will depend on the appropriate length of time, depending on your coursework and research load.</p> <p><u>Day 21-28:</u> Within 7 days, your committee should determine whether you have passed the written section of your qualifier, at which point you may proceed with the oral section of the qualifier. This must be completed within 8 weeks of successful completion of the written exam.</p> <p><u>Day 22-29:</u> Place a copy of your dissertation in the Dept Office and distribute the announcement of the oral proposal and defense. This announcement must occur 1 week before your defense.</p> <p><u>Day 29-36:</u> Give and defend oral presentation.</p> <p>Each year you must:</p> <ul style="list-style-type: none"> • meet with your committee at least once • present at the graduate student seminar 	<p>Complete all coursework (including free electives and core courses (as required)).</p> <p>Take seminar class for at least one more semester (at least 3 credits required)</p>
Year 4-6	<p>You must receive formal permission to write your dissertation; this decision must be unanimous among all committee members</p> <p>You must submit 1 paper for publication related to dissertation prior to your defense</p>	<p>Research hours (as required).</p> <p>At least 6 credits of thesis hours.</p>

FACULTY MENTOR/DOCTORAL STUDENT CONTRACT

Faculty Mentor Responsibilities

The faculty mentor

- Will keep trainee “on track” and hold mentee accountable for his/her time and quality of effort.
- Will provide opportunities for trainee to develop research and academic skills
- Will advise the trainee on the selection of trainee’s dissertation committee and will ensure this committee is instituted within the first year of residence.
- Will ensure that the trainee meets with dissertation committee at least once a year.
- Will have frequent meetings with mentee and provide an open environment for discourse and questions.
- Will ensure that the trainee fulfills all graduate program responsibilities and meet milestones (see timeline below)
- Will ensure adherence to the general rules for the responsible conduct of research by the trainee and will hold responsibility for the general validity of the data generated and published by the trainee.
- Will ensure adherence by the trainee to the animal and recombinant DNA protocols approved for the lab.
- Will guide the design and planning of research/assays and interpretation and the completion of the research
- Will provide constructive criticism and review dissertation work and possible publications.
- Will assist the trainee in preparing research presentations at departmental and scientific meetings.
- Will notify Graduate Program Director if the mentee is experiencing personal or academic difficulties.
- Will submit a report on yearly dissertation committee meetings to the Biology Graduate Program Director.

Student Responsibilities

The student

- Will have the primary responsibility for the successful completion of his/her degree.
- Will meet regularly with their research advisor and provide him/her with updates on the progress and results of their activities and experiments.
- Will work with their research advisor to develop a dissertation project. This will include establishing a timeline for each phase of the work. The student will strive to meet the established deadlines.
- Will work with their research advisor to select a dissertation committee. This will be done by the end of the first academic year.
- Will meet with this committee at least once annually (or more frequently, if needed). The student will be responsive to the advice of and constructive criticism from the committee.
- Will attend and participate in laboratory meetings, seminars and journal clubs that are part of their educational program.
- Will maintain a detailed, organized, and accurate laboratory notebook. The student should be aware that their original notebooks and all research data in all formats are the property of the

laboratory and institution but that they are able to take a copy of their notebooks after completion of the dissertation.

- Will discuss policies on work hours, sick leave and vacation with their research advisor.
- Will discuss policies on authorship and attendance at professional meetings with their research advisor.
- Will attend the doctoral student seminar series. Attendance is mandatory. Students will present once per year commencing in their second year.
- Must make timely progress toward degree completion and satisfactorily meet the standards of scholarship established by the University according to the timeline indicated below.
- Must have a clear understanding of the requirements to complete their degree objectives and develop a plan to satisfy these requirements within the shortest reasonable timeline.
- Graduate students who receive financial support for their graduate program should understand the responsibilities associated with the support they receive and to carry out these responsibilities in a timely, conscientious and professional manner.
- Graduate students with assignments as teachers have special responsibilities to be prepared for their class/laboratory sessions, and to maintain professional and mentoring relationships with their students.
- **Continuous registration is required of all graduate students. Graduate students who fail to register and are not on an official leave of absence are not considered to be students.**

Timeline for Biology Doctoral Degree:

- Course work should be initiated during first semester and completed by the sixth semester in residence.
- Will meet with dissertation committee once a year and provide progress report at each meeting.
- Will take qualifying exam at the end of Year 2 and no later than the third year in program. Written permission is required to extend beyond year 2.
- Prior to applying for graduation, trainees must submit a manuscript for publication and have the manuscript accepted for review. The publication should comprise a significant portion of your doctoral research and it is highly recommended that the target journal should have an Impact Factor greater than 1.0.
- Trainees should complete the Ph.D. requirements (including dissertation) by the fourth year, but no later than the sixth year in the program. If it is anticipated that the project will not be completed by the end of the sixth year, the Committee Chair must petition on behalf of the student for an official extension.

Student

Advisor

Date