Graduate Student Handbook

Department of Zoology
University of Hawai'i
# Table of Contents

Organization and Activities ................................................................. 5
Administrative Organization........................................................................ 5
   Department of Zoology (Edmondson Hall, room 152): .................................. 5
   College of Natural Sciences: ......................................................................... 5
   Zoology Graduate Program: .......................................................................... 5
   Graduate Student Representatives: ................................................................. 6
   Graduate Division: ....................................................................................... 6
Department Activities ..................................................................................... 6
   Department Seminar: ................................................................................... 6
   Friday Socials: ............................................................................................. 7
   Tester Symposium: ....................................................................................... 7
Program Requirements .................................................................................... 7
   Disclaimer..................................................................................................... 7
Which Requirements and Rules Apply to Me? ................................................ 7
Entering Students ........................................................................................... 7
   Undergraduate Deficiencies: ......................................................................... 7
   Preliminary Conference: ............................................................................... 8
   Orientation Seminar: .................................................................................... 8
   Advisor and Program Plans: ......................................................................... 8
Annual requirements for all students ............................................................. 8
   Seminar: ..................................................................................................... 8
   Progress Report: ......................................................................................... 8
   Committee Meeting: ................................................................................... 9
   Research Presentation: ............................................................................... 9
Master's Degree — Thesis (Plan A) .................................................................. 9
   Requirements............................................................................................... 9
   Residency: ................................................................................................ 9
   Course Requirements: ............................................................................... 9
   Time Limit: ............................................................................................... 9
   Thesis Committee: ..................................................................................... 10
Steps Towards Degree ..................................................................................... 10
   Admission to Candidacy: ........................................................................... 10
   Approval of Thesis Proposal: .................................................................... 10
   Thesis Defense: ....................................................................................... 10
   The Thesis: ............................................................................................... 11
   Actions and Deadlines for Plan A Master's Degree .................................... 11
Master's Degree — Non-Thesis (Plan B) ........................................................ 11
   Requirements............................................................................................. 11
   Residency: ................................................................................................ 11
   Course Requirements: ............................................................................... 11
   Time Limit: ............................................................................................... 12
   Program Committee: ............................................................................... 12
Steps Towards Degree .................................................................................... 12
   Admission to Candidacy: ........................................................................... 12
   Approval of Program and Research Topic: ................................................. 13
Research Paper and Presentation: .......................................................... 13
Actions and Deadlines for Plan B Master's Degree .......................... 13
Doctor of Philosophy Degree ............................................................. 13
Admission from the M.S. Program .................................................... 13
Requirements ................................................................................. 14
  Residency .................................................................................. 14
  Course Requirements .................................................................. 14
  Teaching Experience ................................................................... 15
  Time Limit .................................................................................. 15
  Dissertation Committee ............................................................... 15
  Outside member ......................................................................... 15
Steps Towards Degree .................................................................. 16
  Pre-Candidacy Progress ............................................................... 16
  Formation of Dissertation Committee: ........................................ 16
  Approval of Dissertation Proposal ............................................. 16
  Comprehensive Exam .................................................................. 16
  The Dissertation .......................................................................... 17
  Dissertation Defense ................................................................. 17
  Master’s Degree En Route to Ph.D. ............................................. 18
  Actions and Deadlines for Ph.D. Degree ..................................... 18
Academic Rules, Regulations and Policies ........................................ 18
  Minimum GPA ........................................................................... 19
  Academic Probation ...................................................................... 19
  Enrollment .................................................................................. 19
  Course Loads .............................................................................. 19
  500 / 700 / 800 ........................................................................... 20
  Grades ......................................................................................... 20
    Incompletes .............................................................................. 20
    Transfer of Credits ................................................................... 20
    UH Unclassified Credits .......................................................... 20
    Other Institution Credits ......................................................... 21
  Leaves of Absence ....................................................................... 21
  Research Regulations .................................................................. 21
  Animal Care and Use .................................................................. 21
  Environmental, Health and Safety Hazards ................................. 22
  Theses and Dissertations ............................................................ 22
  Zoology Department Requirements ........................................... 22
  Graduate Division Requirements ............................................... 22
  Proxy Members in Thesis/Dissertation Defenses ........................ 23
  Graduate Assistantships and Other Types of Support ..................... 23
    Teaching Assistantships .......................................................... 23
    Application ................................................................................ 24
    Course Load ............................................................................. 24
    Tenure of Assistantships ........................................................ 24
    Foreign Teaching Assistants .................................................... 24
    Research Assistantships ........................................................... 24
    East-West Center Scholarships ............................................... 24
    Part-time Employment ............................................................... 25
Tuition Waivers......................................................................................................................... 25
Additional Employment............................................................................................................... 25
Health Insurance....................................................................................................................... 25
Organization and Activities

Administrative Organization

Department of Zoology (Edmondson Hall, room 152):

The graduate program in Zoology is based in the Department of Zoology, a part of the College of Natural Sciences. The Department’s 16 faculty members provide a broad undergraduate and graduate curriculum in zoology. The department offers both B.A. and B.S. degrees, to about 160 majors; Zoology faculty and courses also contribute substantially to the interdisciplinary Biology and Marine Biology Program, with over 900 majors. In a year or so, the Department and the Biology Program will formally merge into a new “Biology Department”.

The Department is administered by the Department Chair, Dr. Christopher Womersley. The Department has an excellent office staff, consisting of Jan Tatsuguchi (secretary), Lynne Ogata (office assistant), and Audrey Shintani (fiscal officer).

The Department rules and policies are “enforced” by a series of committees. Of particular importance to graduate students are the Graduate Admissions Committee (GAC) and the Graduate Instruction Committee (GIC). The former reviewed your application materials and admitted you and the latter must be consulted on matters ranging from course deficiencies to determining whether, as a Ph.D. student you can receive a M.S. degree “en route” to your Ph.D. If you entered as a M.S. student and want to change to a Ph.D. degree program, you must re-apply through the GAC.

College of Natural Sciences:

The Department of Zoology is a part of the College of Natural Sciences (CNS), which in turn is part of the College of Arts and Sciences (CAS). Dr. Alan Teramura is Interim Dean of the College of Natural Sciences. The CNS offices are located in Bilger Hall, room 102 (across the Mall from Edmondson Hall).

Zoology Graduate Program:

The faculty of the Graduate Program in Zoology includes the 16 members of the Department of Zoology, together with 21 members of the University faculty from various research institutes and 2 colleagues from outside the University. There currently are ~100 graduate students, split roughly evenly between M.S. and Ph.D. programs.

The Graduate Program is administered by the Graduate Chair, Dr. Les Watling, and the Graduate Admissions and Graduate Instruction Committees. The Graduate Chair is appointed by the Dean of the Graduate Division, based on the recommendation of the Department Chair and the Graduate Faculty. The Graduate Admissions Committee (GAC) and Graduate Instruction Committee (GIC) are composed of members of the Zoology Graduate Faculty, appointed by the Department Chair in consultation with the Graduate Chair.
Graduate Student Representatives:
Each year the graduate students elect four students to represent the department graduate student body. These “grad reps” are the main channel for communication between the graduate student body and the faculty and Graduate Chair. They represent the students at faculty meetings and on Graduate Instruction Committee (if needed).

The “grad reps” also organize various activities and assist the Facilities Committee in assigning student office space. They schedule projectionists (typically new students) for the department seminar, and run the social, which follows the seminars. They also help new students with their move to Hawai‘i by providing information, arranging temporary accommodations, etc.

Graduate Division:
The Zoology Graduate Program is part of the University’s Graduate Division, which is headed by the Graduate Dean. The Dean of the Graduate Division chairs the Graduate Council, which determines Graduate Division policies.

The Graduate Dean is Dr. Peter Garrod, but the person you are most likely to deal with is the Associate Dean, Dr. Kenneth Tokuno. The Associate Dean oversees all the Graduate Programs, supervises selection and administration of graduate fellowships and advises the Graduate Student Organization. He also oversees the Student Services Offices (Graduate Admissions and Records), interprets Graduate Division policies and approves exceptions. The Associate Dean also acts as an ombudsman and counselor for graduate students with academic or personnel problems.

The Graduate Division offices are on the 3rd floor of Spalding Hall, adjacent to Edmondson Hall.

Everything you need to know about getting your graduate degree you can find on this web page:
www.hawaii.edu/graduate/sitemap.htm

Department Activities

Department Seminar:
The Zoology department seminar is presented jointly with the Botany Department every Friday afternoon (3:30–4:30) during the school year. This is a research presentation by an invited speaker. Speakers include graduate students (for doctoral dissertation defenses), members of the Zoology faculty, other members of the UH faculty, and guests from outside the University. Graduate students and faculty are expected to attend the seminars, which are open to the general public.
Friday Socials:
Each Friday afternoon, following the department seminar, students and faculty gather on the Edmondson Hall lanai for informal discussion with the seminar speaker, and general socializing. The Grad Reps provide refreshments at cost and often set up a barbecue.

Tester Symposium:
Each spring the Zoology Department sponsors the Albert L. Tester Memorial Symposium. Graduate students in the natural sciences are invited to present their research during this two-day symposium. A distinguished scientist is invited to participate in the symposium by giving research seminars and serving as a judge for the student presentations. The symposium concludes with an awards banquet at which prizes are given for the best student presentations.

Program Requirements

Disclaimer:
This handbook outlines, as much as possible, the requirements that you need to meet in order to receive a Graduate degree from the University of Hawaii at Mānoa. While every effort has been made to make this document as accurate as possible, it is not a legal document. Also, note that the degree requirements come from two sources. There are the University-wide requirements, set by the Graduate Division (GD), and the more specific requirements within those GD requirements, set by the department (ZD).

Which Requirements and Rules Apply to Me?
The degree requirements applicable to each student are those which were in effect at the time the student began his/her degree program, i.e., when he/she entered (or re-entered) the graduate program or switched degree programs. Apart from degree requirements, the current rules, policies and procedures are applicable.

Entering Students

Undergraduate Deficiencies:
Students are expected to have had the following course work prior to entering the graduate program: 18 semester hours of Zoology or Biology; three semesters of chemistry (inorganic and organic) with laboratory; one year of college physics with laboratory; one course in calculus; one course in botany with laboratory or a two-semester general biology course; and a course in biochemistry or molecular biology. A student who is lacking any of this course work must make up the deficiency within the first two years in the graduate program. Except for biochemistry or molecular biology (if taken at the 400-level or higher), courses taken to fulfill undergraduate deficiencies do not get graduate credit. We strongly advise students to be sure to make up these deficiencies before coming to Hawaii. Time in graduate school should not be wasted completing your undergraduate education.
Preliminary Conference:

Each new incoming student will be assigned an Interim Committee consisting of the student’s Advisor, one member of the GIC, and one member of the Zoology Graduate Faculty. A meeting of the student and their Interim Committee should be scheduled either immediately before classes begin or during the add-drop period so that any changes in the student’s proposed course work can be handled in a normal manner. The student and his/her Advisor should use the Interim Committee as a sounding board for progress until the student and Advisor put together the student’s thesis committee.

Orientation Seminar:

All new students are required to take ZOOL 691C during their first fall semester. This is a one-credit seminar in which students are introduced to the Zoology faculty. The seminar also introduces students to resources which might be useful in their graduate studies, such as libraries (at U.H. and elsewhere), computer resources, and University offices such as Graduate Division and the Office of Research Services. This seminar meets every Friday and attendance is mandatory. Students receive a grade of A unless they have unexcused absences, in which case a grade of B or lower may be given.

Advisor and Program Plans:

By the end of his/her first year each student is expected to prepare a detailed plan of his/her intended program. This should include a statement of the degree eventually sought, a proposed schedule of coursework, and a statement of current research interests. This plan is submitted to the student’s Advisor and Interim Committee, and to the Graduate Chair. Of course, a student can at any time replace their Interim Committee with a permanent thesis Advisory Committee.

Annual requirements for all students

Seminar:

All Zoology graduate students are required to take at least one graduate-level seminar or topics course each year. Students who are unable to meet this requirement because they are doing research away from Oahu may have this requirement postponed until they return to Oahu.

Progress Report:

All Zoology graduate students (except those in their first year, but see above) are required to submit a yearly progress report (there is a form for this purpose) to the GIC at the beginning of the Fall semester. This report should describe research progress, course work taken, and any other accomplishments, in the preceding year. It also should outline plans for the coming year and report progress towards or plans for meeting any course work requirement. The progress report will be reviewed by the student’s master’s or doctoral committee each year, as well as by the GIC and Graduate Chair.
Committee Meeting:
Each Zoology graduate student is required to meet with his/her thesis or dissertation committee at least once a year.

Research Presentation:
Every Zoology graduate student (except those in their first year) is required to make a public presentation on his/her thesis or dissertation research.

Master's Degree — Thesis (Plan A)

Requirements

Residency:
Master’s degree students must complete at least 2 semesters of full-time work (or four 6-week summer sessions), or the equivalent.

Course Requirements:

The Graduate Division requirement for a Plan A Master’s degree is completion of at least 30 credit hours with a grade of B or better and the maintaining of a grade point average of at least 3.0. Plan A Master’s degree students must be enrolled in ZOOL 700 (thesis) in the semester in which they graduate.

- 400-700 Level Courses (at least 24 credits)
  - ZOOL 691C (1 credit)
  - ZOOL or BIOL 400 Level Courses (only 6 cr. will count toward the degree)
  - ZOOL 600-700 Level Courses (at least 12 cr.)
  - 600-700 Other Related Courses (only 12 cr. will count for the degree)
  - ZOOL 699 (only 2 will count for the degree)

ZOOL 700 (thesis; 6)

Notes: other related courses are courses from other departments that are directly applicable to the student’s research program. While at UH you might want to take advantage of the university’s strengths in arts, drama, Asian studies, etc., but unless any of those courses can be shown to be directly related to your research, they will not count as part of the 30 credits. If in doubt check with the Graduate Chair at the beginning of the semester in which you intend to take the course.

Time Limit:
The Graduate Division allows a total of 7 years for completion of this degree. In general, the Zoology Department would like to see all requirements for the Master’s degree completed within five years of enrollment. Extensions of these time limits require approval by the Zoology Graduate Chair and the Graduate Division. To request an extension a student must submit a letter to the Grad Chair, endorsed by their Advisor, that contains three elements:

• Formal request for an extension with the length of time of the extension specified;
• Detailed explanation as to why an extension is required; and
• Detailed and realistic (i.e. feasible) plan for the completion of the degree within the period of the extension.

**Thesis Committee:**
Plan A thesis committees are made up of at least three members of the UH graduate faculty, including the Advisor. At least two members of the committee, including the Advisor, should be from the Zoology graduate faculty. Qualified persons not on the UH graduate faculty may serve on Plan A committees by petition to the Graduate Division.

The committee is established officially by filing Graduate Division Form II. This may be done after admission to candidacy. It is strongly recommended that the committee be formed unofficially well before admission to candidacy.

**Steps Towards Degree**

**Admission to Candidacy:**
Students are admitted to candidacy for the Master's Plan A following completion of all courses prescribed by the GIC. This is recorded by Graduate Division Form I.

Note: all forms are downloadable from the Graduate Division web site.

**Approval of Thesis Proposal:**
A thesis proposal must be prepared and accepted by the Thesis Committee within one semester after admission to candidacy. This is recorded by Graduate Division Form II (along with formation of the committee). If the proposed research involves the use of human subjects, nonhuman vertebrate animals, recombinant DNA, radioactive materials, scuba diving, other hazardous materials or activities, approval must be obtained from the appropriate institutional office or committee before research can begin, and copies of the approvals should be submitted with Form II. The student may then enroll in thesis research (ZOOL 700) in subsequent semesters.

**Thesis Defense:**
The final examination for the Master's Degree (Plan A) is a thesis defense: an oral presentation of the work and questions on that work from the thesis committee. The defense is open to all faculty and students.

Copies of the completed thesis must be submitted to committee members at least two weeks prior to the date of the final examination. All members of the thesis committee must be present at the defense; see “proxy members in thesis/dissertation defenses” issued by the Graduate Division for exceptions. A majority of the committee must vote “pass,” otherwise the candidate fails. Students failing the defense may repeat it only once. Students who fail the second examination are dropped from the program.
The Thesis:

Certain aspects of the style of the thesis are set by the Graduate Division. Make sure you familiarize yourselves with these requirements, as your thesis will not be accepted if any of the requirements are not met. Specific requirements can be found on this web page: www.hawaii.edu/graduate/thesdiss/html/style.htm

Two copies of the thesis, one with the original signature page signed by members of the committee in black ink, the other with a copy of the signature page, must be deposited with the Graduate Division. A copy of the thesis must also be deposited in the Zoology Department.

Actions and Deadlines for Plan A Master’s Degree

<table>
<thead>
<tr>
<th>Start of year 1</th>
<th>➔ Preliminary conference with Interim Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>By end of year 1</td>
<td>➔ Choose advisor</td>
</tr>
<tr>
<td></td>
<td>➔ Submit program plan</td>
</tr>
<tr>
<td></td>
<td>➔ Make up undergraduate course deficiencies</td>
</tr>
<tr>
<td>By end of third semester</td>
<td>➔ Submit admission to candidacy form (Form I)</td>
</tr>
<tr>
<td>Within 1 semester after admission to candidacy</td>
<td>➔ Appoint thesis committee and approve thesis proposal (Form II).</td>
</tr>
<tr>
<td></td>
<td>➔ It is strongly recommended that the student get this done during year two or sooner.</td>
</tr>
<tr>
<td>Within 5 years in program</td>
<td>➔ Completion of degree</td>
</tr>
<tr>
<td>2 weeks before defense</td>
<td>➔ Thesis must be given to committee</td>
</tr>
<tr>
<td>By Grad Div deadline</td>
<td>➔ Thesis defense (Form III)</td>
</tr>
<tr>
<td>By Grad Div deadline</td>
<td>➔ Thesis approved and submitted to Grad Division (signature page of thesis)</td>
</tr>
</tbody>
</table>

Master’s Degree — Non-Thesis (Plan B)

Requirements

Residency:
Master’s degree students must complete at least 2 semesters of full-time work (or four 6-week summer sessions), or the equivalent.

Course Requirements:

As specified by the Graduate Division, a student must complete a minimum of 30 credits in 400-through 700-level courses with a grade of B or better and a grade point average of at least 3.0. All courses cross-listed with Zoology and all courses in Biology that can be counted towards a Zoology BA or BS are considered Zoology courses.
400-700 Level Courses (30 credits)
- ZOOL 691C (1 cr)
- ZOOL 600-700 Level Courses (at least 18 cr)
- ZOOL 400 Level Courses (no more than 12 cr)
- Total 400-700 Courses in Other related Departments (6-16)

*Must have at least 2 but no more than 5 credits of ZOOL 699*

Notes: other related courses are courses from other departments that are directly applicable to the student’s curricular program. While at UH you might want to take advantage of the university’s strengths in arts, drama, Asian studies, etc., but unless any of those courses can be shown to be directly related to your research, they will not count as part of the 30 credits. If in doubt check with the Graduate Chair at the beginning of the semester in which you intend to take the course.

Students are required to be enrolled at the University during the term when their degree is being conferred. During the final term, if all degree course requirements are met, students may register in ZOOL 500 (Directed Studies) if they are unable to or do not wish to enroll in courses for credit (ZOOL 500 does not carry credit but does require payment of tuition). Unlike ZOOL 700 and 800, which are required during the final term, ZOOL 500 is not required. ZOOL 500 has been especially useful for those students who are working full time, or are off island during the term their degree is being conferred.

Time Limit:

The Graduate Division allows students to take as long as 7 years to finish their M.S. degree. However, the Zoology Department would like to see all requirements for the Master’s degree completed within five years of the date of admission to the Master’s program. Extensions of this time limit require approval by the Zoology Graduate Chair and by the Graduate Division. To request an extension a student must submit a letter to the Grad Chair, endorsed by their major advisor, that contains three elements:

1. Formal request for an extension with the length of time of the extension specified;
2. Detailed explanation as to why an extension is required; and
3. Detailed and realistic (i.e. feasible) plan for the completion of the degree within the period of the extension.

Program Committee:

The program committee must have at least three members, including the Advisor. Committee members must be on the UH graduate faculty, and at least two (including the Advisor) should be on the Zoology graduate faculty.

Steps Towards Degree

Admission to Candidacy

Students are admitted to candidacy for the Master’s Plan B following completion of all courses prescribed by the GIC. This is recorded by a memo to Graduate Division.
Approval of Program and Research Topic
The advisor and the program committee approve a coherent program of courses and a research topic which will be the subject of the student’s Master’s paper.

Research Paper and Presentation
After completing the course work and ZOOL 699 requirement, the student writes a short research paper and makes an oral presentation of the work to the program committee.

Actions and Deadlines for Plan B Master's Degree

<table>
<thead>
<tr>
<th>Start of year 1</th>
<th>→ □ Preliminary conference with GIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>By end of year 1</td>
<td>→ □ Choose advisor</td>
</tr>
<tr>
<td></td>
<td>→ □ Submit program plan</td>
</tr>
<tr>
<td>By end of year 2</td>
<td>→ □ Make up undergraduate course deficiencies</td>
</tr>
<tr>
<td>After completing prescribed coursework</td>
<td>→ □ Admission to candidacy (by memo)</td>
</tr>
<tr>
<td></td>
<td>→ □ Appoint program committee (by memo)</td>
</tr>
<tr>
<td></td>
<td>→ □ Proposed program of courses approved (by memo)</td>
</tr>
<tr>
<td>Within 5 years in program</td>
<td>→ □ Completion of degree</td>
</tr>
<tr>
<td>By Grad Div deadline</td>
<td>→ □ Research paper written and presented to committee</td>
</tr>
<tr>
<td></td>
<td>(Certification Form for Degree Award)</td>
</tr>
</tbody>
</table>

Doctor of Philosophy Degree

Admission from the M.S. Program
Students enrolled in the M.S. program may apply for admission into the Ph.D. program either upon completion of the M.S. or by transferring to the Ph.D. program without completing the M.S. Students wishing to be transferred from the M.S. program into the Ph.D. program (bypassing the M.S.) must submit a formal application to the Graduate Admissions Committee which will be considered along with new applicants to the program. The application must be submitted by the January 15th deadline and should include:

1. a comprehensive statement (not to exceed 5 pages) providing a detailed description of the scope and academic value of the proposed Ph.D. project;
2. a brief resume, including a description of research completed, manuscripts submitted for publication, national and international presentations given, honors and awards received.
3. letters from three faculty members familiar with the student’s academic credentials; these letters should include: a) an explanation of the basis of the faculty member’s knowledge of the student’s achievements and their assessment of the quality of those achievements; and b) comment on the suitability and scope of the proposed research for a Ph.D.
Requirements

Residency:
Doctoral students must complete at least three semesters of full-time work (or the equivalent in credit hours) at UH Manoa.

Course Requirements:

For students entering with a M.S. degree in Zoology (or equivalent), there are no course requirements for the Ph.D. degree other than the general requirements (ZOOL 691C in the first year, and at least one graduate seminar or topics course each year), and any courses required by the student’s dissertation committee.

For students entering with a B.S or B.A. degree, the course requirements are essentially those for the M.S. Plan A. A minimum of 24 credits is required in courses numbered 400-800. Additionally, 6 credits are required of ZOOL 800 (dissertation), for a total of 30 credit hours. Students are required to enroll in ZOOL 800 during the term in which their degree will be conferred. All courses cross-listed with Zoology and all courses in Biology that can be counted towards a Zoology BA or BS are considered Zoology courses.

Zoology PhD (without MS awarded) - Course requirement breakdown:

\[400-700 \text{ Level Courses (24 credits)}\]
\[\to \text{ZOOL 691C (1)}\]
\[\to \text{ZOOL 600-700 Level Courses (at least 12)}\]
\[\to \text{ZOOL 400 Level Courses (no more than 6)}\]
\[\to \text{600-700 Other Department Related Courses (no more than 12)}\]
\[\to \text{ZOOL 699 (no more than 2 will count toward the degree)}\]
\[\to \text{ZOOL 800 (dissertation; 6)}\]

Minimum Total Credits: 400-700 Level Courses (24) + ZOOL 800 (dissertation; 6) = 30 credits

Note 1: other related courses are courses from other departments that are directly applicable to the student’s research program. While at UH you might want to take advantage of the university’s strengths in arts, drama, Asian studies, etc., but unless any of those courses can be shown to be directly related to your research, they will not count as part of the 30 credits. If in doubt check with the Graduate Chair at the beginning of the semester in which you intend to take the course.

Note 2: Once these 30 credits have been completed, and the comprehensive exam passed and Form II submitted, there are no more formal course requirements. Note especially though that the student must maintain continuous enrollment of at least one credit per semester (excluding summer). Failure to do so is tantamount to resignation from the graduate program and to be re-instated the student has to formally re-apply. However, note also that if you are supported on a Graduate Assistantship, then you must enroll for 6 credits of research or course work during each semester for which you are awarded a GA.
Teaching Experience:
The Zoology Department considers experience in teaching as an integral part of the academic training program, and teaching experience is required of all doctoral students. This experience usually takes the form of a teaching assistantship of at least one semester, but also may be fulfilled by experience in high school biology teaching or other teaching experience.

Time Limit:
The Ph.D. must be completed within seven years of admission to the graduate program. For students admitted directly into the Ph.D. program, or into the Ph.D. program after completing a Master’s degree in the Zoology program, this time limit begins when the student was admitted into the Ph.D. program. For students transferring from the M.S. program to the Ph.D. program without completing the M.S., the time limit begins when the student was admitted into the M.S. program.

Extensions of this time limit require approval by the Zoology Graduate Chair and the Graduate Division. To request an extension a student must submit a letter to the Grad Chair, endorsed by their Advisor, that contains three elements:

1. Formal request for an extension with the length of time of the extension specified;  
2. Detailed explanation as to why an extension is required; and  
3. Detailed and realistic (i.e. feasible) plan for the completion of the degree within the period of the extension.

Dissertation Committee:
The dissertation committee must include at least five members, including the advisor (committee chair). The chair must be a “full” member of the Zoology graduate faculty, and a majority of the committee members should be on the Zoology graduate faculty. Any member of the U.H. graduate faculty can serve on a Zoology dissertation committee; to include persons not on the U.H. graduate faculty, a petition with their C.V. should be submitted to the Graduate Chair, for approval by Graduate Division. For potential committee members, select Zoology on the following Graduate Division web page: www.hawaii.edu/graduate/wa/selectmember.php

Outside member:
One member of the committee is the “outside” member. While this person may be very helpful towards the dissertation research, the primary function of the outside member is to serve as a representative of the Graduate Division, to ensure procedures and standards are fairly and reasonably applied. The outside member therefore must be what is called a “full” member of the “regular” graduate faculty at U.H.; this means, most importantly, that she or he must be hired as a member of the U.H. faculty. The outside member also must be in a department other than Zoology and cannot be a member of our graduate faculty. Furthermore, if the student is in an interdepartmental graduate specialization (Marine Biology; Ecology, Evolution and Conservation Biology) the outside member should not be on the faculty of that specialization.
Steps Towards Degree

Pre-Candidacy Progress:
After completing all coursework required to fulfill undergraduate deficiencies, the student needs to file Form I with the Graduate Division. All pre-candidacy progress should be completed within two years of entering the Ph.D. program.

Note: Forms I, II, and III are available on the Graduate Division web page: Form IIa is available from the Zoology office or the Department web page.

Formation of Dissertation Committee:
The dissertation committee should be formed as early as is reasonable. This is recorded in two ways. First, Zoology Form IIa (Dissertation Committee) is submitted by the (proposed) chair of the student’s committee to Graduate Division via the Zoology Graduate Chair, listing the proposed committee and stating that each committee member has agreed to serve. If any proposed members are not on the U.H. graduate faculty, the memo should justify their participation and be accompanied by their current CV. This form must be submitted, and the proposed committee approved by Graduate Division, before the comprehensive exam is scheduled.

The committee composition also is recorded on Graduate Division Form II, which is filed after successful completion of the comprehensive exam and approval of the dissertation proposal.

Approval of Dissertation Proposal:
A dissertation proposal must be prepared and accepted by the dissertation committee within two semesters of completing the pre-candidacy progress Form I (that is, by the end of year 3 of the student’s program). This is recorded by Graduate Division Form II (along with formation of the committee and successful completion of the comprehensive exam). If the proposed research involves the use of human subjects, nonhuman vertebrate animals, recombinant DNA, radioactive materials, scuba diving, other hazardous materials or activities, approval must be obtained from the appropriate institutional office or committee before research can begin, and copies of the approvals should be submitted with Form II.

Comprehensive Exam:
The comprehensive examination, administered by the student’s Dissertation Committee, consists of an oral examination that emphasizes the dissertation field or research area, but may cover any facet of zoology. The entire dissertation committee must be present at the exam; any other member of the U.H. graduate faculty also may attend.

A majority of the dissertation committee, including the chair, must vote “pass”; otherwise the student fails the exam. Students failing the comprehensive examination may repeat it only once. Students who fail the second examination are dropped from the program. Students must complete the comprehensive examination within three years of entry into the Ph.D. program.
Successful completion of the comprehensive exam is recorded on the Graduate Division Form II (along with formation of the committee and approval of the dissertation topic.)

Acceptance of Form II by the Graduate Division signifies formal Advancement to Candidacy for the Ph.D degree. The student may then request an All But Dissertation (ABD) certificate from the Graduate Division. From this point on the student may enroll in dissertation research (ZOOL 800) in subsequent semesters.

The Dissertation:
Under the guidance of the dissertation committee, the candidate prepares a doctoral dissertation according to the rules established by the Graduate Division (see Theses and Dissertations on the Grad Division web page). At least three members of the doctoral committee, including the chair, must read the dissertation; standard practice in Zoology is for the entire committee to read the dissertation. Committee members who read and approve the dissertation indicate this by signing the signature page, and Form III.

All doctoral students are required to publish their dissertations with ProQuest or some other equivalent publishing firm suggested by the student and approved by the Graduate Division. See the guidelines for format and style, etc., on the Grad Division web page: www.hawaii.edu/graduate/thesdiss/html/content.htm

Be sure to check all the details as failure to comply will result in rejection of your dissertation by the Grad Division.

Doctoral students are required to submit two unbound copies of their dissertations to the Graduate Division, and are expected to provide one copy for the Zoology Department library.

Dissertation Defense:
The final examination, which is primarily a defense of the dissertation, consists of a public oral presentation by the student of the dissertation research, and oral questioning of the student by the public and the dissertation committee. The full doctoral committee must participate. The examination must be at least one-hour in length.

The defense should be scheduled at least one month in advance, by which time the committee should have a complete copy of the dissertation. Announcement of the defense must be submitted to the Graduate Records Office at least three weeks prior to the date of the defense (four weeks in advance during the summer). The defense must be announced in the University Calendar.

The results of the defense are reported on Form III. A majority of the members of the doctoral committee, including the committee chair, must vote “Pass,” otherwise the candidate fails. Candidates failing the final examination may repeat it only with the approval of both the Graduate Program faculty and the Graduate Dean. Candidates failing the final examination twice are dropped from both the Graduate Program and Graduate Division.
There are a number of other rules, etc., for complications and exigencies, and these are laid out on the Grad Division web page: www.hawaii.edu/graduate/thesdiss/html/defense.htm

Master’s Degree En Route to Ph.D.
Doctoral students who do not have a master’s degree in Zoology (or equivalent) may obtain a master’s degree after passing the comprehensive exam and satisfying all the requirements of the M.S. Plan A, other than completion of a thesis. Requests for such a degree must be approved by the Graduate Instruction Committee and the Zoology Grad Chair, who then recommend to the Graduate Division that a M.S. degree be awarded. Some research experience generally will be expected before the degree is granted.

Actions and Deadlines for Ph.D. Degree

<table>
<thead>
<tr>
<th>Start of year 1</th>
<th>Preliminary conference with GIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>By end of year 1</td>
<td>▸ Choose advisor</td>
</tr>
<tr>
<td></td>
<td>▸ Submit program plan</td>
</tr>
<tr>
<td>By end of year 2</td>
<td>▸ Make up undergraduate course deficiencies</td>
</tr>
<tr>
<td></td>
<td>▸ Submission of pre-candidacy progress form (Form I)</td>
</tr>
<tr>
<td>Formation of Dissertation Committee</td>
<td>▸ Appoint dissertation committee (Form IIa)</td>
</tr>
<tr>
<td>Within 2 semesters after submission of Form IIa</td>
<td>▸ Dissertation proposal approved</td>
</tr>
<tr>
<td></td>
<td>▸ Oral comprehensive examination (Form II)</td>
</tr>
<tr>
<td>Within 7 years in program</td>
<td>▸ Completion of degree</td>
</tr>
<tr>
<td>4 weeks before defense</td>
<td>▸ Dissertation to committee</td>
</tr>
<tr>
<td>3 weeks before defense</td>
<td>▸ Defense scheduled and Graduate Division notified</td>
</tr>
<tr>
<td>By Grad Div deadline</td>
<td>▸ Dissertation defense (Form III)</td>
</tr>
<tr>
<td>By Grad Div deadline</td>
<td>▸ Dissertation approved and submitted to Grad Division</td>
</tr>
</tbody>
</table>

Academic Rules, Regulations and Policies
As noted above [in the section “Which requirements and rules apply to me?”], this handbook presents only a summary of rules, regulations and policies applicable to graduate students in Zoology. Many of these rules and policies are established by the Graduate Division and apply to all graduate programs; the Graduate Division web page
Minimum GPA
Graduate students are required to maintain a 3.0 GPA:

→ In all UH courses that are to be applied to degree requirements
→ In all courses taken as a classified degree-seeking graduate student
→ In all graduate (600-level or higher) courses.

Students may petition Graduate Division to exclude from the GPA up to two grades lower than B for undergraduate courses taken in the first semester of graduate school. If this is done those courses cannot be counted towards degree requirements. Doctoral students may petition to be exempted from the GPA minimum requirement for one semester.

Academic Probation
Students whose cumulative grade point average fails to meet these GPA minimum requirements after completing 12 credit hours or two semesters of course work are placed on academic probation for the following semester. Students admitted conditionally (due to low undergraduate GPA) will be placed on academic probation if they fail to meet the minimum GPA requirement after completing one semester.

Students who fail to attain the required minimum GPA at the end of the probationary semester are dismissed from graduate school.

Enrollment
After admission to candidacy, students must be registered each semester (excluding summer session) for course work, thesis/dissertation, or research credit. Students who are not enrolled, or are on an approved leave of absence, are regarded as having withdrawn from the degree program, and will be required to apply for readmission if they wish to resume graduate studies.

Course Loads
A graduate student is considered as enrolled full time if his/her course load is:

→ 8 – 16 credits if not a graduate assistant (students whose financial aid, e.g., fellowships, requires they be enrolled full time, must be registered for at least 8 credits)
→ 6 – 9 credits if a graduate assistant
→ At least one credit of Dissertation 800 if a doctoral candidate
→ One credit of Thesis 700 if a Master’s Plan A candidate and all degree credit requirements, including that for Thesis 700, have been met.

Audited courses do not count towards these course-load limits. The upper limits may be exceeded with permission from the student’s advisor, the Graduate Chair, and the Graduate Division.
Students must be enrolled in at least one course or register for one credit of ZOOL 500/700/800 (whichever is appropriate) during the semester in which they graduate.

500 / 700 / 800
ZOOL 500 may be taken by Master’s Plan B students who have fulfilled all degree course requirements. It does not carry credit (cannot be counted as graduate credit) but does require payment of tuition.

ZOOL 700 (thesis 700) may be taken only by Master’s Plan A candidates, and only after the thesis proposal has been approved and Form II has been filed. Six credits of thesis 700 are required for the Plan A degree, and students must be registered for thesis 700 the semester in which they graduate. The Graduate Chair can request that credits of 699 be magically transformed into 700 if necessary.

ZOOL 800 (dissertation 800) may be taken only by Ph.D. candidates, and only after the dissertation proposal has been approved and Form II has been filed. Students must be registered for dissertation 800 the semester in which they graduate.

Grades
Only courses in which a letter grade of C or better can be counted towards degree requirements. Graduate students may take courses credit/no credit (CR/NC) or may audit courses, but such courses cannot be counted towards degree requirements.

Incompletes
An “I” (Incomplete) is given to students who fail to complete a small but important part of a semester’s work in a course before the semester grades are determined. Students are expected to complete all courses and will be allowed to graduate with “I” grades on their transcript only by permission from the Graduate Chair and Graduate Division. Students receiving an “I” should contact the instructor to determine the steps to be taken to remove the “I”.

Transfer of Credits
Credits for courses taken prior to entering the graduate program, or at another institution while in the graduate program at U.H., may be transferred and applied to graduate degree requirements, subject to the following conditions. Transfer of credits does not reduce the minimum residence requirements. Doctoral students may not transfer credits.

UH Unclassified Credits
Up to 15 credits earned at UH as an unclassified post-baccalaureate student prior to entering the graduate program may be transferred. Courses must have been taken within five years of entry into the graduate program. Credits for directed research (699) cannot be transferred. The request to transfer credits must be made during the first semester in the graduate program, and must be approved by the Graduate Chair and Graduate Division.
Other Institution Credits
Up to 15 credits earned at another accredited institution that were not used for a previous
degree may be transferred. No more than one-half of the credits required in graduate courses
(600- and above) may be transferred. Credits may be transferred only for courses:

➔ In which a letter grade of B or better was earned
➔ Which were taken within seven years of completion of the degree
➔ Which were not used to earn a previous degree

Transfer of credits can be requested either by petition or on Form I (Preliminary
Conference). The request must be made during the first semester in the graduate program,
and must be approved by the Graduate Chair and Graduate Division.

With prior approval, up to six hours of course work completed at another accredited
institution after admission to candidacy at UH may be transferred (within the limit of 15
credits total to be transferred).

Leaves of Absence
Students who have been admitted to candidacy may be granted leave from their studies on
recommendation of the Graduate Chair and approval by the Dean of the Graduate Division.
Leave of absence is not normally granted for a period longer than one year. The date of
return from a leave must be set at the time the leave is requested. Students not returning
from leave on time will be required to apply for readmission to the University in accordance
with established regulations.

Students on approved leave do not pay tuition fees, time on approved leave is not counted
against the five- or seven-year limits for completion of degree programs, and no re-
admission procedure is required.

Research Regulations

Federal, State and University regulations require that proposed research projects of certain
types be reviewed and approved to ensure that the proposed research complies with
applicable protective standards. Students who are unsure whether these regulations apply to
their research should consult with their advisor, with Graduate Division, or with the Office
of Research Services.

Animal Care and Use

Students intending to conduct research using human or animal subjects should be aware of
federal, state, and UH regulations and review processes to ensure compliance with protective
standards. These regulations cover research funded by non-UH sources, sponsored by the
UH, or conducted by or under the direction of any employee or agent of the UH in
connection with his/her institutional responsibilities or using any UH property or facility.
These regulations also cover research involving the use of the UH’s non-public information
to identify or contact research subjects.
**Environmental, Health and Safety Hazards**

University employees or students, whose research may involve recombinant DNA, radioactive materials, scuba diving, or hazardous materials, should contact the Environmental Health and Safety Office for information and guidance. This office provides information about appropriate safety and laboratory standards, as well as applications for approvals from the Institutional Biosafety Committee, the Radiation Safety Committee, and the Diving Control Board.

**Theses and Dissertations**

The format for theses and dissertations is specified by the Graduate Field in Zoology and subject to approval by the Graduate Dean. Each candidate for the Plan A Master’s degree and the Ph.D. should obtain a copy of “Instructions for the Preparation of Theses and Dissertations” from the Graduate Division before beginning to write the thesis or dissertation. What follows here is merely a summary of those detailed instructions.

**Zoology Department Requirements**

The requirements of the Zoology Department permit two types of thesis/dissertation. The thesis/dissertation may take the traditional form with an introduction stating the problem, the background of the problem, and a review of the literature; a section on methods and materials; chapters that describe the results; one or more chapters of discussion and conclusions; and a section of Literature Cited.

Alternatively, the thesis/dissertation may consist of a series of published papers. In this form:

- There must be a “comprehensive” abstract at the beginning of the dissertation (required even if an abstract appears with each article);
- There must be an introductory chapter integrating the general theme of the research and the relationships between the chapters; this chapter may also include a review of the literature relevant to the dissertation, but that does not appear in the subsequent chapters;
- There must be adequate referencing of where the individual papers have been published; and
- The submitted material must conform to standards set by the Graduate Division with respect to format, organization of contents, legibility and reproducibility.

**Graduate Division Requirements**

The Graduate Dean must approve publication of the papers to be included in the dissertation prior to their publication. This requirement is for the protection of the student. In the case of multiple authors, the role that the dissertation author had in the research and production of the published paper should be clearly indicated in the preface or other introductory section of the dissertation. It is expected that the doctoral candidate will be the senior or sole author of at least one of the papers and will have made major contribution to the research and writing of all papers included in the dissertation. Written permission for all copyrighted materials must be attached to the Publication Agreement.
It is the joint responsibility of the graduate student and the faculty member he/she works with to discuss their expectations concerning assignment of authorship of publications resulting from theses, dissertations, or other collaborative research projects.

An essential aspect of thesis/dissertation research is the free and full dissemination of research results. Moreover, the thesis/dissertation must be publicly defended in an oral examination. Therefore, proprietary or classified information is not suitable for a thesis/dissertation; data that cannot be made public at the time of the final defense should not be incorporated in the student's thesis or dissertation.

**Proxy Members in Thesis/Dissertation Defenses**

As a general rule, the Graduate Division discourages the use of proxies for Thesis or Dissertation defenses. The preferred alternatives are:

- Postpone the defense;
- Use teleconferencing or video conferencing; or
- Restructure the committee.

If use of a proxy member is the only practicable solution that does not unduly penalize the student, the Graduate Division will permit a faculty member to serve as proxy for a committee member, but the proxy is expected to officially replace the committee member until he or she returns. That is, the proxy is expected to ask any questions he or she deems appropriate; the proxy may require the student to revise, modify, add or delete portions of the thesis or dissertation; and the proxy must indicate on Student Progress Form III whether or not, in his or her judgment, that the student successfully defended the thesis or dissertation. Committee members who do not participate in the defense should not sign Form III.

Assuming that the absent committee member has read the thesis/dissertation, the absent member should indicate his or her approval (or disapproval) on Form III. Only members approving the thesis/dissertation should sign the signature page. If the absent member has not read the thesis/dissertation, the committee should be restructured.

**Graduate Assistantships and Other Types of Support**

**Teaching Assistantships**

Graduate teaching assistantships are available in the Department of Zoology for students who have a minimum 3.0 GPA. Assistantships carry a stipend that is paid over a 12-month period for 9 months of service. Tuition is waived for all students with graduate assistantships (including teaching and research assistantships). Graduate assistants are expected to spend half time (not more than 20 hours per week) working for the department in instruction (12 hours per week) and associated duties (8 hours).
Application

Application forms may be obtained by writing to the Chair of the Zoology Department, and the application may be processed simultaneously with the application for admission. However, recommendations for appointments as graduate assistants are finalized only for applicants who have been admitted to the Graduate Division as potential degree candidates for the period during which they will be serving as graduate assistants.

Graduate teaching assistantships in the Department of Chemistry and in the Biology Program are also often available to Zoology students. Application for Chemistry assistantships should be made directly to the department; however applications for Biology assistantships must be approved by the Department Chair.

Course Load

All graduate assistants must carry a minimum of 6 credit hours, but may carry a maximum of 9 credit hours each semester. Audit hours do not count toward the minimum. The 6 credit hours may be at any level, 100-800. Graduate assistants taking only Dissertation 800 for less than 6 credits may be certified by the Graduate Division as carrying a full load. To be eligible for such certification, receipt of Student Progress Form IV verifying that the dissertation proposal has been approved must be recorded in the Graduate Division.

Tenure of Assistantships

Teaching assistantships are awarded and reviewed annually. Normally the total period of service for any assistant will not exceed four years.

Foreign Teaching Assistants

The English Language Institute has developed a course to provide practice for foreign teaching assistants in speaking in classroom situations with an emphasis on oral skills: ESL 111. Practicum for Foreign Teaching Assistants: Foreign teaching assistants are encouraged to take this course.

Research Assistantships

Research assistantships frequently are available to qualified students in connection with research projects of the faculty. Such assistantships rarely are available until after the faculty has had the opportunity to assess the student’s research potential. The stipend and working conditions are similar to those of graduate teaching assistantships, although research assistantships may or may not include a tuition waiver. Tuition waivers are dispersed from the Office of Research Services, and are only awarded if the student is working during 12 of the 16 weeks of the semester. Tuition waivers are not awarded to students directly receiving funding for assistantships from sources outside of the University, and are not directed through the Office of Research Services.

East-West Center Scholarships

These scholarships are designed to promote mutual understanding by bringing together students from Asia, the Pacific area, and the United States for study, interchange of ideas, and shared living experiences. Grants are ordinarily for 24 months and include travel to and
from Hawaii, tuition, books, food and lodging, health insurance, and a small monthly personal allowance. Support may also include an Asian study grant, given to qualified candidates, enabling them to study language and complete research in the field.

Eligibility is based on high academic achievement, excellent health, ability to relate to Asians, and interest in contributing to the Center. Candidates must commit themselves to a concentration in some major aspect of the Asian-Pacific field, including a language. Zoology is included among the fields of study that qualify for support.

Applications for East-West Center scholarships and additional information may be obtained by writing to: The Selections Office, East-West Center, 1770 East-West Road, Honolulu, Hawaii 96822. The deadline for receiving completed applications for the following academic year is December 15.

Part-time Employment
Part-time employment sometimes is available with the Hawaii Institute of Marine Biology, the National Marine Fisheries Service Honolulu Laboratory, the United States Fish and Wildlife Service, the Bernice P. Bishop Museum, and local offices of other agencies.

Tuition Waivers
Tuition exemptions are included in each teaching assistantship contract. In addition, the Graduate Division makes one tuition waiver available to the Zoology Department each semester. Other tuition waivers, some requiring that the student’s work have a Pacific-Asia focus, are available through the Graduate Division. Inquiries about the availability of waivers should be made at the time of application. Applicants should thoroughly explore the University’s website to discover potential sources of support and to find out how they may apply for such support.

Additional Employment
It is expected that the combined responsibilities of graduate student and assistant will occupy all the time available to a student during the academic year. University policy on outside (off-campus) or overload (on-campus) employment by a graduate assistant in addition to the assistantship limits such employment to eight hours per week.

Health Insurance
Graduate assistants may enroll in the State Health Fund medical insurance program if appointed at 0.50 FTE for a period of at least three months. There are several plans to choose from, both single and family, with the cost shared in part by the State. Alternatively, assistants may enroll in one of the student health plans, either single or family.