## **REGULATIONS and POLICIES**

## Ecological Sciences Ph.D. Program

Old Dominion University Norfolk, VA 23529-0266

Individual colleges and/or programs may establish requirements above and beyond those set by Old Dominion University as outlined in the ODU Graduate Catalog. Students are obligated to follow the requirements of the appropriate graduate program section of the catalog in effect at the time of their first enrollment for their degree.

Revision made January 2019

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#### **ADMISSIONS**

Students who wish to enter this program should apply to the Ecological Sciences Ph.D. Program and submit an electronic application following guidelines found at the Office of Admissions (applicants from USA schools) or the Office of International Admissions (applicants from international schools). The application deadline for the Ecological Sciences Ph.D. Program is February 1 for full consideration for the following fall semester.

#### Admission Requirements

- An appropriate undergraduate degree and substantial coursework in biology, chemistry, or geology.
- 2. Overall GPA of at least 3.0 (on a 4.0 scale).
- 3. Overall GPA in the sciences of at least 3.0.
- GRE scores near the 70th percentile on each of the examination sections: verbal, quantitative, and analytical (a combined total of >300 on the verbal and quantitative sections is expected).
- 5. Three satisfactory letters of recommendation, with one preferably from the applicant's major advisor if coming from a master's program.
- 6. A satisfactory statement of professional goals (one to two pages in length) that is written with good diction and reflects a mature individual with well-thought-out and realistic professional goals, including specific research interests.
- 7. A member of the graduate faculty must agree to serve as the applicant's major advisor and should notify the Graduate Program Director preferably by email.
- 8. A test of English as a Foreign Language (TOEFL) score of at least 550 (paper-based test), 213 (computer-based test), or 79 (internet-based test) for applicants whose native language is not English.
- 9. All admissions criteria are evaluated by the graduate admissions committee.

#### Financial Assistance

New students seeking doctoral fellowships, research assistantships, tuition grants, part-time tuition grants, teaching assistantships, and University Fellowships should fill out an Application for Institutional Graduate Financial Assistance form and submit this form along with other application materials. The application deadline for the Ecological Sciences Ph.D. Program is February 1 for full funding consideration for Fall admissions. More information provided below on specific funding opportunities.

#### Admissions Decision Process

The Graduate Program Director (GPD) assembles the application materials and maintains all graduate records in the Department of Biological Sciences. Immediately following the application deadlines, the GPD completes the application files, summarizes information about each applicant, and ensures that all information is available for faculty review. Faculty members who agree to advise one or more of the applicants are to notify the GPD in writing.

A graduate admissions committee will meet after the application deadline to decide on the selection of graduate students for admission into the Ecological Sciences Ph.D. Program. The admissions committee shall be composed of the GPD and at least two graduate faculty from the program.

#### **NEW STUDENTS**

- 1. The following sites are excellent starting points for new students seeking information about the university: Admitted Student Guide or International Admitted Student Guide.
- 2. Housing information, both on- and off-campus, is available at the Office of Housing and Residence Life.
- 3. Students should contact their advisor as soon as possible for advice on coursework, research projects, and availability of Graduate Research Assistantships (GRAs).
- 4. An advisor registration block, which prohibits course registration, is the default status for each new student. The new student's graduate advisor needs to update the advisor information for their students to activate the student for registration. To accomplish this, the graduate advisor should go to: LeoOnline Main Menu Faculty & Advisors Advisor Menu Advisors Work Page Student ID Student Verification [ok] Student Must Return For Advising Prior To [update], Advisor ID [update].
  - a. If no primary advisor exists, the first one added via LEO Online will be set to primary.
  - b. If a primary advisor exists, a new advisor will be added when the page is updated.
  - c. If one wishes to replace an existing primary advisor (this is optional), contact the Registrar (register@odu.edu) and request the change. Be sure to include University Identification Numbers (UINs) for the student and the new advisor.
- 5. Students should contact the <u>Biology Graduate Student Organization</u> (BGSO) and have their email added to the BGSO distribution list.
- 6. Information about graduate teaching assistantships (GTAs) may be obtained from the Chair of the Department of Biological Sciences. Students will be notified of departmental assistance and awards as they become available. All other forms of financial aid are handled by the Office of Student Financial Aid. Email: finaid@odu.edu, Telephone: (757) 683-3683.
- 7. There is a university and departmental orientation each fall that provides details about the graduate school. Orientation announcements are emailed to new students during the first month of the fall semester.
- 8. Responsible Conduct of Research (BIOL 672) is a requirement for all students. It is expected that students will take this course in their first year.

#### **IMPORTANT LINKS**

Office of Graduate Studies – university level information on all graduate programs Graduate Catalog – university level policies for graduate students Thesis and Dissertation Guide – guidelines for the format of doctoral dissertations

Forms – forms required during progression through doctoral program

Information Technology Services (ITS) – technical support

Office of Visa & Immigration Service Advising (VISA) –support programs for international students

Military Programs – graduate programs in the military

Office of Environmental Health & Safety Office (EHSO) – lab safety issues

Office of Finance - tuition and paychecks

Office of Housing and Residence Life – housing assistance Office of Research – university level

research information Office of Student Financial Aid – financial assistance

Office of the University Registrar/Academic Calendars - registration deadlines and more

<u>Old Dominion University Research Foundation (ODURF)</u> fiscal and administrative agent for sponsored research

College of Sciences, 143 OCNPS, 757-683-3274

The College of Sciences comprises seven departments: (1) Department of Biological Sciences;

(2) Department of Chemistry and Biochemistry; (3) Department of Computer Science; (4)

Department of Mathematics and Statistics; (5) Department of Ocean, Earth and Atmospheric Sciences; (6) Department of Physics; and (7) Department of Psychology.

**Department of Biological Sciences** 

Office: 110 Mills Godwin Building (MGB) Phone: 757-683-3595

Fax: 757-683-5283

Department Chair: Chris Osgood, MGB 110, 757-683-3595, cosgood@odu.edu.

Ecological Sciences Ph.D. Graduate Program Director; Holly Gaff, MGB 202J, 757-683-6903,

hgaff@odu.edu.

Master of Science Graduate Program Director; Wayne Hynes, MGB 202D, 757-683-3613, whynes@odu.edu.

#### Primary Ecological Sciences Faculty

Dr. Daniel J. Barshis

Dr. Ian K. Bartol

Dr. Mark Joseph Butler IV

Dr. Kent E. Carpenter

Dr. Holly D. Gaff

Dr. David T. Gauthier

Dr. Lisa Horth

Dr. Lytton John Musselman

Dr. Kneeland K. Nesius

Dr. Lisa Wallace

Dr. Deborah A. Waller

Dr. Eric L. Walters

Dr. John Whiteman

See full directory for other faculty.

#### **GENERAL INFORMATION**

#### Student Responsibilities

All students in the Ecological Sciences Ph.D. Program are responsible for reading and understanding the regulations and policies set forth in this document and in the University Catalog (Graduate Catalog). Award and continuance of Commonwealth supported financial aid (TAs, Dominion Scholarships, and tuition waivers) is contingent upon the student achieving adequate progress through the program. Evaluation of progress is subject to review and consideration of extenuating circumstances.

#### Program Administration

The Graduate Program Director (Holly Gaff, Room MGB 306, hgaff@odu.edu) answers questions concerning admissions, degree requirements, financial aid, and approves pertinent forms and applications.

#### **Graduate Courses**

A list of all graduate classes is available in the <u>University Graduate Catalog</u> and course rotations for the Department of Biological Sciences are available in the <u>Biology Course Rotation Schedule</u>.

#### Financial Aid and Scholarships

This section describes funds administered by the Department of Biological Sciences. Other forms of financial support, scholarships, etc. are listed in the <u>University Graduate Catalog</u> and the <u>Financial Aid Office</u>.

Students interested in a graduate research assistantship (GRA) should contact their major advisor and graduate committee regarding availability. Graduate teaching assistantships (GTAs) are available through the Department of Biological Sciences. Students should apply during the spring semester for support the following academic year using the Application for a Graduate Teaching Assistantship form. This form is available from and submitted to the GPD, generally on February 15.

#### **Graduate Teaching Assistantships**

The GTA stipend is currently set by the department. For the summer session the amount is dependent on the number of credits taught. The maximum expected workload for a GTA is 20 hours per week with a maximum of 9 lab-contact hours per semester or a maximum of 6 classroom (teaching/lecturing) contact hours per semester. GTAs are normally awarded tuition waivers that cover both in-state and out-of-state tuition for the first year and in-state in subsequent years for those eligible to change residency. GTAs funded by the Commonwealth of Virginia are required to take nine credit hours per semester in both the fall and spring semesters and, if a GTA during the summer, three credit hours in the summer session. Related Information:

• GTAs will be assigned to their classes in mid-August and mid-December.

- First-time GTAs must attend the Graduate Teacher Assistant (GTA) Institute.
- Non-native English-speaking students must take and pass the SPEAK Test (score 50 or better). An acceptable score on the TOEFL internet-based test (iBT) may also qualify.
- Preliminary teaching evaluations of GTAs by the faculty begin the first part of the semester. Final evaluation of each GTA by the faculty is to be completed by the last day of classes. Student evaluations of each GTA will be completed before the last day of classes. A minimum score on student evaluations is required to be eligible for a subsequent teaching assistantship.
- GTA contracts require that students are on campus the week before classes start and remain through graduation unless exception granted by GPD and instructor of record.

Graduate Research Assistantships (ODU and Old Dominion University Research Foundation)
The GRA stipends must be equivalent to GTA levels; however, students should contact individual faculty for details about assistantships funded through their grants and contracts.
The expected workload for a GRA should also be discussed with the person responsible for the funding, although workload cannot exceed 20 hours/week during the academic year. GRAs must be enrolled as full-time students as defined by the ODU Graduate Handbook. Students receiving GRAs must receive an award letter from their principal investigator employer who must complete the payroll authorization process with the appropriate ODU department budget manager or ODU Research Foundation each semester that they are employed.

#### **Tuition Support**

Financial support for graduate tuition (undergraduate courses are not eligible) is awarded to GTAs each semester and in the summer session with deadlines announced in advance. US students are expected to become in-state students by the beginning of their second year unless they have a valid reason to request an exemption to this expectation.

#### Departmental Scholarships

#### **Virginia S. Bagley Endowed Scholarship**

Description: The Virginia S. Bagley Endowed Scholarship is made possible by Mrs. Bagley's estate and is awarded to Old Dominion University graduate students in the Department of Biological Sciences. The number of scholarships, their amount, and their duration will be set each year within the funding limits of the Bagley endowment. When possible, the amount of the award in combination with any other graduate funding will be at least equivalent to the Dominion Graduate Scholarship.

Eligibility: Applicants can be newly matriculated or continuing full-time graduate students in the Department of Biological Sciences who have demonstrated outstanding progress in the program with evidence of scholarship and/or service in an area of biology.

Application information: Applications should include the following: (a) a curriculum vitae, (b) transcripts, (c) a personal statement that highlights accomplishments and professional goals, (d) a letter of recommendation from the graduate advisor, and (e) any other supporting documentation. All application materials are to be submitted to the applicant's Graduate Program Director by February 1.

Award Committee: The Chair of the Department of Biological Sciences will appoint an ad hoc committee to review the applications. The committee will submit their recommendation by April 1.

#### The Harold G. Marshall and Vivian J. Marshall Scholarship

Eligibility: The Harold G Marshall and Vivian J. Marshall Scholarship is awarded to a full-time graduate student who demonstrates scholarship and/or service in the area of Biological Science with a specific concentration in ecological areas.

Application information: Applications should include the following: (a) curriculum vitae, (b) transcripts, (c) a personal statement that highlights accomplishments and professional goals, (d) a letter of recommendation from the graduate advisor, and (e) any other supporting documentation. All application materials are to be submitted to the applicant's Graduate Program Director by February 1.

Award Committee: The Chair of the Department of Biological Sciences will appoint an ad hoc committee to review the applications. The committee will submit their recommendation by April 1.

#### **Dominion Graduate Scholarship**

A Dominion Scholarship is generally awarded to one student entering the Ecological Sciences Ph.D. Program each year. A combined GRE score of at least 310 on the verbal and quantitative sections and a GPA of at least 3.2 overall and 3.5 in the major are required. The award is for 4 years, with a stipend of \$18,000 per year and full tuition exemptions. All applicants to the Ecological Sciences Ph.D. Program are considered for this scholarship.

#### Work Study Funding and University-wide Scholarships for Graduate Students

For details regarding work-study and university scholarships contact the Financial Aid Office.

#### Continuance Policy

Only students who have been admitted to a graduate degree program on the basis of completed credentials will be considered for assistantships and tuition grants. Students who are placed on probation or suspension are ineligible for tuition assistance or for support as a GRA/GTA, and any such funds that may have been received during a period of ineligibility are subject to pay back.

#### **Departmental Seminars**

The Department supports a seminar program that convenes weekly during the academic year. Graduate students are expected to attend all departmental seminars.

#### Biology Graduate Student Organization (BGSO)

This University-recognized student organization serves as the official organization representing the students in our department. The BGSO selects student members for the Department Faculty Committees (Budget & Finance, Seminar, Curriculum), assists in running the Graduate

Student Orientation Seminar, and serves as the official liaison between the graduate students and faculty in departmental matters.

#### **Graduate Records**

Academic files for the Ecology Doctoral Program are maintained by the Department of Biological Sciences in accordance with ODU policy. Graduate records for the matriculated are archived for five years from the time of the student's last enrollment. Application files are held for one year for the non-matriculated.

Student information may be shared by a committee for the purpose of review and decision-making. However, the Family Educational Rights & Privacy Act (FERPA) requires that care must be given to ensure the privacy of the students' information and that the information is made available only to individuals who have a legitimate reason to know.

#### Office and Laboratory Space

The Department will attempt to provide office or study space for all full-time resident graduate students. Such space is limited, and it is departmental policy that students with teaching assistantships are given first priority, followed by students with research assistantships. Students are often assigned desk space in their Major Advisor's laboratory or other appropriate space. At the beginning of each fall semester all students requiring a desk (including those currently with desk space) should complete a Desk Request Form. The Chair and/or Departmental GPD will evaluate all requests and assign desks by the first week of classes. All changes in desk use should be cleared through the Chair and/or Departmental GPD. It is essential that graduate students maintain these areas in an orderly way and not encroach upon the space assigned to others. If additional storage, laboratory or office space is needed, one should contact her/his major advisor.

#### Keys

Keys to departmental facilities are issued on an as-required basis. The key request form is obtained in the Biology Office, RM 110 MGB. Students need approval of the faculty member assigned to that room. In no case will a key be issued to a faculty member's office or research laboratory without specific authorization by the faculty member.

Under no circumstances is a key to be duplicated or loaned to unauthorized persons. Promptly report lost keys to the major advisor or Department Chair. If keys are not returned when the period of use ends, a "hold" will be placed on the student's records, which will block further registrations or issuance of official transcripts.

#### **Equipment and Facilities**

The Biological Sciences Support Facility (BSSF, MGB 207) or a faculty member should be notified of equipment that is in improper working condition or that is missing. Students should always be alert for conditions that are unsafe or equipment that warrants repair. No area should be left unsecured. Unfortunately, theft does occur, and precautions must be taken to prevent loss

of personal and departmental items. The department is not responsible for the loss of personal items.

Computers – Computers are available across campus including in the Learning Commons. Many faculty also have computers available for use by their graduate students. In addition, the University operates many computer rooms around campus for all ODU students. Contact Information Technology Services (ITS) for additional information on computer-related matters.

Areas of Limited Access - Access to some areas within the Department is limited (e.g. greenhouse, animal facility, Orchid Observatory, Aquatics Facility). When access to these facilities is required, permission must be obtained from the responsible faculty member. Faculty and office personnel have lists of the faculty responsible for departmental facilities.

Copy Machines - The copy machines in the Department are for GTA-related class work use only. They are not to be used for theses, dissertations, or personal papers.

#### Mail and Departmental Notices

The Department provides mailboxes (in alphabetical groupings by last name for graduate students) in the Biology Office, Room 110 MGB. Mail is delivered and picked up once a day. The Department does not cover the cost of postage for outgoing graduate student mail.

#### Safety Regulations

Teaching Assistants are responsible for the safe operation of the laboratories in which they teach. Proper procedures for using volatile and inflammable solvents, explosive or poisonous chemicals, radioactive materials, and laser equipment must be followed. A teaching assistant is legally responsible and may be held liable for any accident that occurs in his or her laboratory. Similar safety precautions must be maintained in research laboratories. The instructor of record, your major advisor or research director is responsible for alerting you to any unusual hazards.

#### Laboratory Safety Training (required)

The Environmental Health and Safety Office (EHSO) provides Laboratory Safety Training for all employees and volunteers who work in laboratories where hazardous chemicals are used or stored. It is a requirement of the Virginia Occupational Safety and Health Program that you attend this one-time training session. It is the responsibility of each Laboratory Principal Investigator (Lab Supervisor) to ensure that their staff, graduate students, and volunteers attend this training. Laboratory safety training is included in the course Responsible Conduct of Research (BIOL 672).

#### Administrative Assistance

Teaching Assistants may request clerical help with teaching assignments in accordance with office policy; and as a rule, graduate students may request office help if the work is related to

general departmental business. The department does not provide clerical assistance or supplies for a student's personal or graduate work.

#### **DEGREE REQUIREMENTS**

#### Major Advisor and Advisory Committee

A Major Advisor must be identified to the Graduate Program Director prior to admission into the program. After being admitted to the program and enrolling, students consult with their Major Advisor about initial coursework. Early in the first semester the Major Advisor (Committee Chair), in consultation with the student, will select nominees for the remainder of the Advisory Committee.

The Advisory Committee will consist of the Major Advisor and at least four other faculty members approved for graduate instruction. The committee must include at least one person from outside the Department of Biological Sciences. Adequate representation from faculty in the Ecological Science Division (normally at least three committee members) is recommended.

In some cases, the professional experience of non-regular graduate faculty members, such as a staff member at the Smithsonian Institution, may be sought for the Advisory Committee. Once approved for graduate instruction at the appropriate certification level, such specialists may be appointed to the committee. Where the doctoral research requires considerable guidance from an outside specialist, the specialist may be approved as co-chairman of the Advisory Committee. In all cases, a regular member of the faculty certified for graduate instruction must chair or co-chair the committee. The composition of the Committee is reported to the Graduate Program Director by means of the Appointment of Doctoral Advisory Committee (Form D1).

The Advisory Committee has the responsibility for administering the candidacy examinations and approving the program of study. The committee continues to serve until the candidacy examinations have been passed, the dissertation topic and prospectus are approved, and the student is admitted to candidacy. The Committee has the responsibility for guiding and directing the academic program of the student during this period of time and for initiating all academic actions concerning the student. It is recommended that the student meet with his or her committee at least once per year to review progress.

Changes in the composition of the Advisory Committee must be made in advance of the candidacy examination. Informal substitutions for the oral part of the candidacy examination are not permitted. Changes in the committee are permitted between the written and oral portions of the examination only with the approval of the Graduate Program Director and the Dean of the College of Sciences. The examination must be scheduled at a time when it is possible for all members of the Committee to participate, either in person or remotely. Changes made in the Advisory Committee without prior approval are not recognized.

The first Advisory Committee meeting should be held before the end of the first semester. The committee and student will design the program of study at that time. During the initial meeting, the student's program of study must be formulated and approved.

#### Residence

An essential feature of doctoral study is the provision of total concentration on the field of study for significant periods of time. Students who wish to pursue a part of their doctoral study on a part-time basis may do so, but all doctoral students shall spend at least two semesters engaged in full-time graduate study. To be considered a Virginia resident for tuition purposes for any given semester, it is necessary to be domiciled in the Commonwealth of Virginia for at least one year immediately preceding the beginning of that term. A student who meets the criteria for resident tuition during his or her course of study is not automatically reclassified to such status. He or she must request such a classification. See Graduate Catalog for additional information and appeals of classification. All students who are eligible to do so must apply for residency after their first year. Tuition waivers after the first year are at in-state rates only unless the student is an international student or applies for and is awarded an exception by the GPD to this policy.

#### **Time Limits**

All requirements for a doctoral degree must be completed within eight calendar years from the start date of the first course taken following admission to the doctoral program. The Graduate Program Director and the Dean of the College of Sciences must approve exceptions to these time limits [Exception to Time Limits Allowed to Complete Degree (Form D8)]. Academic credits older than eight years at the time of graduation must be validated by an examination before the work can be applied to a doctoral degree [Re-Validation Of Out-Of-Date Graduate Credit (Form G3)]. See "Validation of Out-of-Date Graduate Credit" section of the Graduate Catalog for details. Students whose graduate study is interrupted for military service will be granted an extension of time for the period of their military service, not to exceed five years. Students should be aware that non-military service extensions are rare and are only approved by the GPD in consultation with the student's committee. Students exceeding the 8-year time limit without an approved extension will be converted to non-degree seeking status and removed from the Ecological Sciences Ph.D. Program.

#### Program of Study

A Program of Study should be developed by the student and the Advisory Committee and a completed Program of Study form should be submitted to the Graduate Program Director for approval during the first semester of the program. Failure to present this form on time may prolong the period of study for the degree. Whenever possible, the plan should include the dissertation topic and letter of intent, although these may be submitted later after the Program of Study form is approved. The successful completion of all work indicated on the approved plan of study is a fundamental prerequisite to the granting of the degree.

#### Coursework

A minimum of 48 semester credit hours of post-master's coursework is required or, in the absence of a master's degree, a minimum of 78 semester credit hours beyond the bachelor's degree is required. At least three-fifths of the coursework must be completed at the 800-level, and all must be at the 500-level or above. The student's program of study should be broad and balanced, including courses appropriate to the student's individual interests and needs. The student is expected to attain a depth of training in an area through coursework and an independent research project and dissertation. Doctoral students must take dissertation credit as pass/fail and may select from among the designated pass/fail-graded experiences for a portion of their program requirements, provided that they take a minimum of 24 credit hours of letter-graded coursework, of which at least 18 hours must be letter-graded coursework beyond the master's degree, or equivalent, and meet any additional departmental or school requirements.

#### **Core Courses**

One of:

BIOL859 Foundations and Principles in Ecology (3 credits)

BIOL524 Comparative Animal Physiology (5 credits)

One of:

BIOL801 Practical Computing for Biologists (3 credits)

BIOL832 GIS in Life Sciences (4 credits)

BIOL872 Modeling and Simulation in Life Sciences (4 credits)

BIOL895 Advanced Bioinformatics (3 credits)

Plus:

BIOL620 Biometry (4 credits)

BIOL672 Responsible Conduct of Research (2 credit)

BIOL808 Ecological Sciences Seminar (one credit per year, at least 4 credits)

BIOL898 Research (18+ credits)

BIOL899 Dissertation (3+ credits)

Biology 808 provides specific topic seminars assigned to specific faculty members on a rotational schedule. Doctoral students must take, on average, at least one seminar per year while in residence. All seminars will require the students to lead discussions. During each meeting a student topic leader leads a discussion on specific topics or papers appropriate to the theme. Students registered for the seminar must act as the topic leader at least once each semester. All participants are expected to come prepared for the discussion. Grades are based on the presentation as topic leader and also on extent and quality of participation in the discussions throughout the semester. The seminar instructor is responsible for the administrative duties associated with the course and serves as discussion moderator.

At the end of each semester (fall, spring, summer), the records of the students who do not maintain a 3.00 cumulative grade point average (GPA) are reviewed. Students who do not have

a cumulative GPA of at least 3.00 will be placed on probation and will not be eligible for GTA or GRA support without an exemption from the Dean of the Graduate School. Graduate students on probation with a cumulative GPA below 3.00 after completing 12 credit hours will be placed on indefinite suspension and prevented from enrolling in graduate courses. See Graduate Catalog for information regarding reinstatement.

#### Dissertation Load Registration

State-funded teaching assistants (GTAs), state-funded graduate research assistants (GRAs), and Dominion Scholars must register for every semester they are being paid, at least 9 credit hours during the fall and spring semesters and 3 credit hours during the summer semester. Old Dominion University Research Foundation (ODURF) – supported GRAs must register for every semester they are being paid, at least 6 credit hours during the fall and spring semesters and 3 credit hours during the summer semester.

Students who have completed all coursework but who are working during a given semester to complete other outstanding degree requirements (e.g. comprehensive examination, dissertation, removal of an I or II grade) or wish to use university facilities and/or consult with faculty must be registered for at least one credit during that semester. Graduate students must be registered for at least one credit hour in the semester in which they plan to graduate. GRAD 999, or the program equivalent, may be used to fulfill this requirement. Registration for GRAD 999, or the required program equivalent, is subject to the normal fees and regulations of the University.

After successfully passing the Candidacy Examination and getting approval of the written prospectus, all doctoral students are required to be registered for at least one graduate credit hour each term (fall, spring, and summer) until the degree is completed, including the semester in which they graduate. This is the "all but dissertation" (ABD) requirement and can be satisfied by enrollment in 1 hour of any 800-level course, including Biol. 808 Seminar. Upon reaching this status, all doctoral students should complete the Doctoral Candidates 1-Hour Full-Time Notification Form (Form D4) and submit it to the GPD. Failure to comply with this requirement will result in charges to the student's account for one graduate credit hour plus required fees for each semester after passing the candidacy examination. Students are not eligible for graduation until all charges are paid.

A candidate who finds it necessary to be excused from registration for a semester must report formally, before the beginning of the semester, to the dissertation committee and the Graduate Program Director and complete a Leave of Absence from Doctoral Program Form (Form D7). A leave of absence may not exceed one year and may not be repeated. During a leave of absence, the candidate will not be entitled to assistance from the dissertation committee or use university facilities. The granting of a leave of absence does not change the candidate's responsibility for meeting the time schedule for the completion of degree requirements.

#### Research Skills Requirement

The Research Skills Requirement should be completed by the end of the student's second year in the program and must be completed before taking the candidacy exam. Competency in a foreign language, computer programming, or quantitative method is required for completion of the research skills requirement. The student must choose one of the options (a - c listed below) to fulfill the requirement, and the requirement must be met at least 60 days before the candidacy examination is attempted. Once this requirement is completed, the student should submit a Result of Doctoral Examination or Requirement (D3) form to the GPD along with the appropriate documentation (i.e. transcript, certification letter form from the Department of Foreign Languages and Literatures, or letter from the student's committee certifying competency in computer programming or quantitative methods).

- 1. Foreign Language The requirement may be satisfied in one of the following ways:
  - a. By achieving a B or better in a second semester sophomore level language course at Old Dominion University or another accredited college or university
  - b. By passing a translation exam. All reading examinations will be administered by the Department of Foreign Languages and Literatures. Students may use a dictionary and take up to two hours to translate the passage provided. Generally, two graders are used for each examination, although in certain cases (e.g., exams in a less-commonly-taught language) the department may request a grader from another department. The graders will evaluate enough of the examination (approximately 500 words) to determine the student's ability to read material in the foreign language at a level appropriate to conducting graduate research. Tests will be administered at the request of the individual student, who should arrange for a testing date and time with the administrative personnel of the Department of Foreign Languages and Literatures. Students should be aware that during the summer months faculty members from the Department of Foreign Languages and Literatures might be away and unavailable for prompt evaluation of tests. At other times, evaluation will take from two to three weeks. The student is ordinarily limited to one attempt per option per semester to pass this requirement. There is no limit on the total number of times the examinations can be taken.
  - c. At the discretion of the advisory committee and Graduate Program Director, foreign students whose native language is not English may use their TOEFL score to meet the foreign language requirement. A TOEFL score falling at or above the 70th percentile will be required.
- 2. Computer Programming Skill The Student must solve a substantial problem by writing an original computer program that provides the correct solution. A faculty member with computer expertise will be asked by the Graduate Program Director to submit a problem. The student will have one week to write a program in an appropriate language that correctly solves the problem. The problem must be solved independently with no help from others. The faculty member who submitted the problem will evaluate the results. If the program does not work, the student will have failed the exam.

3. Quantitative Skill - The student must demonstrate proficiency in a quantitative skill that is appropriate for his/her research, but distinct from the dissertation. The student's doctoral advisory committee must approve satisfaction of the research skills requirement in a written statement provided to the Graduate Program Director along with a completed and signed copy of the D3 form (Result of Doctoral Examination or Requirement). Quantitative skill proficiency may be established in biostatistics, molecular techniques, geographic information systems (GIS), or other quantitative skills fundamental to the research in ecological and evolutionary biology. Based on the discretion of the advisory committee, fulfillment of this requirement may involve the completion of classes and/or a skills test.

#### Research Letter of Intent and Prospectus

Within the first year in the program, a letter of intent (LOI) must be submitted for approval by the Advisory Committee. This LOI must follow the NSF-style pre-proposal with the limit of 5-pages. Students are encouraged to develop and initiate their research project as early in their program as possible. Once the Advisory Committee approves the LOI, a completed Result of Ph.D. Examination Or Requirement Form (Form D3) should be submitted to the Graduate Program Director. The LOI must be completed before attempting the Candidacy Exams.

After passing the Candidacy Exams, the student must write a prospectus that will outline the plans for the dissertation research. The prospectus must follow the NSF-style full proposal with the limit of 15-pages. The prospectus is expected to be a substantial effort and must be approved by all dissertation committee members. Once a prospectus is approved by the Dissertation Committee, a completed Result of Ph.D. Examination Or Requirement Form (Form D3) should be submitted to the Graduate Program Director.

#### **Candidacy Examinations**

The candidacy examinations (written and oral) must be completed by the end of the third year in the program. The examinations qualifying a student for candidacy for the degree of Doctor of Philosophy are comprehensive in nature and consist of both oral and written components (see below for descriptions). Before taking the candidacy examinations, the student must meet the program's requirements and have the recommendation of the Advisory Committee. The research skills requirement must be met at least 60 days (see above) in advance of the examinations. The candidacy examinations are usually taken no sooner than the semester in which the last formal graduate courses listed in the program of study are being taken. To be eligible to take the candidacy examinations, students must have achieved a grade point average of at least 3.0 on all coursework completed. In addition, this average must be attained on all graduate residence units as well as on all combined transferred and residence units. When the student and Advisory Committee have determined that the time is right for taking the examination, the student's advisor should contact the Graduate Program Director, who will verify that the student has met the prerequisites for the candidacy examination. The Graduate Program Director must be consulted on the schedule of this examination. Once permission has

been granted, postponement of the examination must have the approval of the Graduate Program Director and Dean of the College of Sciences.

All advisory committee members must participate in the written and oral candidacy exams; participation generally involves the electronic submission of questions for the written component and 'in person' participation for the oral component, although remote participation (e.g., conference call, Skype, WebEx, etc.) is also acceptable.

#### Format of the Written Component of the Candidacy Exam

The Written Candidacy Examination will be administered generally over five consecutive days or more (depending on the number of the committee members). Each member of the Advisory Committee will contribute one or more questions to be answered on one day of the examination. The Chair of the Advisory Committee (i.e., the major advisor) will solicit the questions from committee members and will administer the exam. The student will receive each day's question(s) in the morning and will submit their answer(s) to the Chair of the Advisory Committee at the end of the day. The exam is conducted on the honor system, and questions are assumed to be "closed book" unless otherwise indicated.

#### Specific Procedures:

- 1. The questions will be assembled by the Chair of the Advisory Committee and will be submitted to the GPD in advance of the exam for review. The GPD will review the questions as an independent reader, primarily for clarity. The examiners and committee Chair determine what constitutes appropriate content. Committee members other than the Chair need not be present during the five days (or more) of the Written Candidacy Examination.
- 2. The location of the exam will be determined by the Chair of the Advisory Committee in consultation with the student.
- 3. In the event that the student has irresolvable teaching or employment commitments, the exam can be scheduled on non-consecutive days, provided the days are kept as close together as possible. Weekend days may be included in the exam period.
- 4. The student will answer the questions using a word processor (preferably MS Word), and answers will be submitted in electronic format. Graphs, diagrams, etc., can be handwritten and submitted separately.
- 5. Each day, at an agreed time, the student is given the question(s) from one committee member. The question(s) may be provided in person or electronically (by e-mail or other means). Generally, the student will be given the day's question(s) in the morning and will have as long as needed, including that evening if necessary, to complete the day's question(s). When the student has completed the day's question(s), the answer file(s) will be e-mailed (or provided on flash drive) to the committee chair, and that day's work is then concluded. No further work on that day's question(s) is permitted. Handwritten materials can be delivered to the chair as soon thereafter as possible. Again, work on those materials must cease after the electronic answer files have been transmitted.
- 6. The default format for exam questions is "closed book." That means that no materials (books, journal articles, internet resources, notes, or, of course, other individuals) may

be consulted while answering such questions. The program relies upon the integrity of each student for compliance. In no case can the student ask any other individual for assistance or advice regarding any question. Any examiner may, at their discretion, specify that a question is "open book," in which case they will indicate what additional materials can be used to answer one or more of their questions. That condition will be made clear in the question. Additional materials may include publications, internet resources, library materials, or any other items designated by the examiner. If the student is uncertain regarding what materials may be used, or needs any other clarification, they should contact the committee chair for guidance.

- 7. The committee chair will distribute the answers to each examiner in electronic format (with paper copies of any handwritten materials) as soon as possible following the examination. Each committee member will carefully evaluate the answer to their question(s), determine whether the student has performed to a level adequate to pass their question(s), and provide a single grade of pass or fail for the day's question(s). Examiners should also provide a brief statement regarding the quality of the answer(s) they received and the strength of the student's performance on their question(s). Examiners may provide comments in the electronic file of the answer if they wish, and their comments may, at their option, be made available to the student.
- 8. When the exam has been completed and each examiner has submitted their evaluation, the committee chair will distribute all questions, answers, and comments to all committee members. All committee members will then review all questions and answers, including the comments by each evaluator, and a vote will be taken to determine whether the student has passed the exam. More than one negative vote will constitute a failure of the exam. Note that the final vote is based upon the entirety of the written exam, not on the number of individual questions passed. Thus, for example, a weak but passing performance on several questions may be determined by a committee member to be grounds for voting against a passing performance on the entire exam.
- 9. The results of the Written Candidacy Examination will be reported to the GPD using the Result of Ph.D. Examination Or Requirement Form (Form D3). If the student passes the written exam, the Oral Candidacy Examination can be scheduled.

#### Format of the Oral Component of the Candidacy Exam

After successful completion of the written exam, an oral examination, which must be taken prior to the end of the next semester, is given. The entire graduate faculty may participate in the examination but only the Advisory Committee votes on the outcome. The Advisory Committee will solicit views of the other faculty members who are present. The questions will be free-style and open-ended with regards to subject matter. All members of the Advisory Committee, including extramural members, must participate in the oral exam. If scheduling or other conflicts preclude a committee member from attending the oral exam in person, arrangements must be made for that committee member to participate remotely (e.g., conference call, Skype, WebEx, etc.).

#### Specific Procedures:

- 1. The Advisory Committee question the student.
- 2. The student is dismissed from the room.
- 3. The committee votes for pass or fail.
- 4. The student returns to the room and is informed of the results of the exam.

  Generally, the committee chair will provide constructive advice to the student at this time based on comments from the advisory committee.
- 5. The results of the Oral Candidacy Examination will be reported to the GPD using the Result of Ph.D. Examination Or Requirement Form (Form D3).

A student must pass both the written and oral candidacy examinations. The written examination must be passed before the oral examination may be taken. For either the written or oral examination, more than one negative vote from the examining committee will result in a failure. A failed written examination must be retaken successfully within one year. A student who passes the written examination on the first attempt need not repeat the written exam in the event of failing the oral exam. A failed oral exam, which also may be attempted a second time, must be retaken prior to the end of the next semester. Students must be registered in any semester in which they are scheduled to take examinations.

#### Admission to Candidacy

Admission to Candidacy is a formal step that occurs after the student has (a) completed the research skills requirement, (b) completed formal coursework, (c) passed the candidacy examinations, and (d) filed a dissertation prospectus approved by the Advisory Committee. Students who have advanced to candidacy must complete an Advancement to Candidacy form (D9 form). All doctoral students who have advanced to candidacy are required to be continually registered for an appropriate number of dissertation units during each semester, including summer sessions (see "Registration Requirements" above).

#### Research and Dissertation

After the candidacy examinations have been passed and written dissertation prospectus has been approved, the student advances to candidacy and the responsibilities of the Advisory Committee have been concluded. A new committee, the Dissertation Committee, is formed to supervise the research. Faculty members who agree to serve on a Dissertation Committee understand that they are committed to serve until the dissertation is completed. The committee must have approval of the Graduate Program Director using the appropriate form (Appointment of Doctoral Dissertation Committee (D2 form)). Replacement of the dissertation committee chair or any other substantial change in the composition of the dissertation committee requires that the reconstituted dissertation committee re-evaluate and re-approve the dissertation prospectus. Any restructuring of the committee requires approval of the GPD, Department Chair, and Dean (Appointment of Doctoral Dissertation Committee (D2 form)).

The Dissertation Committee should have at least three graduate certified faculty members. One faculty member must be from outside the Department of Biological Sciences. The Chair of the

former Advisory Committee will typically become Chair of the Dissertation Committee. The Dissertation Committee Chair must be certified for graduate instruction and be an authority in the field of specialization of the proposed dissertation. Membership may be extended to a nonuniversity person with special knowledge in the dissertation subject area. Voting privileges can be provided to such specialists based on approval of the Departmental Promotion and Tenure Committee, the Graduate Program Director, and the Dean of the College of Sciences. No more than one-third of the committee's membership can be individuals external to the university. Adjunct faculty members who are certified for graduate instruction may be appointed as voting members of the Committee upon the recommendation of the Chair of the Dissertation Committee and approval of the Graduate Program Director and Dean of the College of Sciences. An external reader from outside the university is encouraged but not required. The Associate Vice President for Research and Graduate Studies and the College Dean are ex-officio members of all dissertation committees. Research and dissertation should be the equivalent of at least 24 semester hours of academic work. Students are required to register for research during each semester that research is conducted and/or for an appropriate number of dissertation units during each semester and summer session after completion of the full-time study requirement.

General regulations and procedure governing the submission of a doctoral dissertation are given in the Thesis and Dissertation Guide. Writing the dissertation as chapters that can be submitted for publication in peer-reviewed journals is encouraged and submitting to committee members prior to journal submission is highly recommended.

#### Annual Doctoral Student Interview

Annual assessment of student progress should facilitate the timely progression of students through the program, provide students with constructive feedback on their progress, and permit a more equitable basis for allocating support (e.g., Graduate Teaching Assistantships, tuition waivers, etc.). In brief, the expected benefits of the annual interview are:

- 1. Students are evaluated on their progress and rewarded for such (in terms of departmental support) in a uniform, fair, and open manner.
- 2. The process helps motivate students by giving them a definitive annual timeline for accountability and by establishment of a more competitive peer-group evaluation.
- 3. The process yields information on student progress that is used to more fairly distribute financial aid resources (teaching assistantships, tuition waivers, desks, etc.).
- 4. Faculty members also obtain a greater appreciation of the research and accomplishments of other students in the program, beyond those of their own students and those on whose committees they serve.

#### The process consists of three components:

 A written summary of annual achievements and progress that the student completes on a standardized form. This form is completed by the student and turned in to the Graduate Program Director approximately one month prior to the student interview date.

- 2. A short interview with the student by the Ecological Sciences faculty, which has three elements:
  - a. Student Presentation: Each interview begins with a 5-minute presentation by the student in which they highlight their significant accomplishments for the year in the form of a progress report, outline their objectives for the following year, and offer up any necessary explanations for problems they have had.
  - b. Question/Answer Period: A 5-minute question and answer period follows the student's presentation, wherein faculty may ask questions. This is not meant to be a comprehensive exam format and is not meant to supplant regular committee meetings. The intent is to gauge the annual progress of the student, clarify points the student made in the presentation, ask more specific questions about research, offer suggestions for improvement where appropriate, etc.
  - c. Faculty Discussion and Evaluation: At the conclusion of the question period, the student is asked to leave the room. The faculty then have 5 minutes to discuss among themselves any relevant points about the student's progress during the past year, with one faculty member (preferably the student's advisor) keeping notes on the discussion. Each of the faculty members then rates the student's progress on a standardized sheet. The ratings are on a scale from 1 4, with 1 = excellent, 2 = good, 3 = average, 4 = poor. The Graduate Program Director compiles the faculty comments and uses them together with notes from the faculty note taker to write a brief summary of each student's progress. A copy of this summary is provided to the student and to the student's advisor. One copy is also retained in the student's file along with the summary of achievement submitted by the student.

All doctoral students in the Ecological Science Ph.D. Program are required to interview annually. Those students who are off-campus at the time must arrange for a conference call interview with the faculty. All faculty actively involved in the Ecological Sciences Doctoral Program are expected to participate. Participation does not imply that they only be in attendance for their own student's interviews.

#### Dissertation Defense

The Chair of the Dissertation Committee acts as moderator of the defense, ruling on questions of procedures and protocol that may arise during the defense. The chair should also promptly notify the Graduate Program Director of the results of the defense using the Result of Ph.D. Examination or Requirement Form (Form D3). All members of the Dissertation Committee must participate in the defense, either in person or remotely via teleconference or videoconference.

The aim of the defense is to explore with the candidate the methodological and substantive contributions of the dissertation. The final oral defense of the dissertation must have the majority approval of the Dissertation Committee and results of the defense should be included on the Result of Ph.D. Examination Or Requirement Form (Form D3), which is submitted to the Graduate Program Director. In the case of failure, the Dissertation Committee may recommend that the candidate either be dropped or be allowed re-examination.

The oral defense should be scheduled at least 12 months after the candidacy examinations are passed and a lead-time of at least two weeks is required for scheduling the defense. This information is published in the appropriate university news media. The oral dissertation defense is open to the university community; all interested members are encouraged to attend the examination. Satisfactory performance on this examination is a requirement for the degree.

Venue for the Defense - The oral defense of the dissertation must be announced at least two weeks in advance, both by posting signs giving the date, time, and location of the defense and announcing the defense via email to the department and/or web announcement to the university community. The presentation for the defense should be held in a room that is appropriate for such a significant event, preferably the room in which departmental seminars are held. Ideally, the defense should be scheduled as part of the regular departmental seminar series. If that is not possible, an attempt should be made to schedule the defense in the same room but at a different time. Failing that, a room should be selected that is similar in nature to the seminar room and that allows for a sizable audience. The defense should also not be scheduled during academic breaks.

In some cases, it may be necessary to accommodate a distant committee member by allowing that member to join the defense by teleconference or videoconference. Before scheduling such a defense, the student must obtain permission in advance from the Graduate Program Director. The student must also obtain prior approval from the department chair to cover the local costs of such a teleconference or videoconference. All arrangements for the teleconference/videoconference are the responsibility of the student, working with the members of the Dissertation Committee and with ODU's Academic Technology Services. In the case of a defense by teleconference or videoconference, the presentation and subsequent committee deliberations will be held in the Gornto Building or another location with suitable technological facilities. Such a defense must still be announced two weeks in advance, in the customary manner.

#### **Dissertation Procedures**

Students should consult the Thesis and Dissertation Guide when preparing dissertations. Students should be aware that in most cases, the university owns intellectual property created with university resources and can claim an interest in the intellectual property. Intellectual property must be disclosed to the Office of Research using an invention disclosure form. In order to fulfill its contractual obligations, and to adhere to the Policy on Patents and Copyrights, it may be necessary on occasion for the university to temporarily delay publication of a dissertation that contains potentially patentable information to ensure the availability of worldwide patent protection. Such situations would arise when a faculty member directing the research, under his/her duty as a university employee, discloses potentially patentable subject matter to the Office of Research. A student's degree requirements can still be fulfilled even though publication of the dissertation is delayed.

Presentation of a dissertation in partial fulfillment of degree requirements necessitates submission of the finished original work to the Dean of the College of Sciences for final approval, following oral defense and signature approval by the thesis/dissertation committee and Graduate Program Director. The dissertation should not be reproduced until the Dean has approved the finished original work, in the event that corrections need to be made.

#### **Graduation Process**

Students should be aware that there are a number of steps to follow to complete the graduation process. These steps are listed below:

- 1. In the semester preceding graduation, the student should apply for graduation. The deadline for graduation application is listed in the class schedule each semester and usually falls near the end of the semester preceding the one during which graduation is anticipated.
- 2. Graduate students must be registered for at least one credit hour in the semester in which they graduate. Registration for BIOL 999 is subject to the normal fees and regulations of the University.
- 3. Students should review their Program of Study to ensure that all the courses listed have been completed.
- 4. Students should submit the following to the Graduate Program Director at least five weeks before graduation (the GPD requires 2 weeks to review the dissertation and check it for compliance with university formatting regulations, the Dean's office requires 3 weeks, see below):
  - a. "Thesis/Dissertation Acceptance & Processing" Form D5 signed by the Dissertation committee.
  - b. Result of Ph.D. Examination Or Requirement Form (Form D3) signed by the Dissertation committee (if not provided previously).
  - c. The model journal article published within the last five years.
- 5. Students should submit a copy of the dissertation and the appropriate forms to the Associate Dean's office (OCNPS 143) at least three weeks before the last day of classes in the semester (prior to the beginning of the final examination period).
- 6. Students must then follow the directions in the Thesis and Dissertation Guide for proper submission through the ProQuest system.
- 7. A microfilming fee may be required; a copyrighting fee is optional. The student may order additional copies of the thesis or dissertation by making payment to the Office of Finance at the same time the required copies are ordered.
- 8. Requirements of Graduate Assessment: Old Dominion University has developed an institution-wide plan to assess the quality of its graduate academic degree programs. In addition, students are asked to assess their experiences with support services, University administration, and other aspects of their University experience. Students must complete the assessment at the end of their graduate degree program. Failure to complete the assessment normally precludes the student's right to receive his or her graduate degree. Assessment results are used to improve student learning and the educational experience at Old Dominion University, and they do not become part of

students' records. Confidentiality is assured, as only aggregate data are reported and used in analyses.

#### Conversion between Doctoral and Master's Programs

A student may convert his/her degree track to an appropriate Master's program in special situations. A doctoral student making satisfactory progress but wishing to leave the Ecological Sciences Ph.D. Program may apply in writing to the Master's Graduate Program Director, with copies to both graduate program directors and the applicant's committee. A completed Notice Of Change Of Status Form (Form G2) should accompany this request. The Master's Graduate Program Director, in consultation with the Ecology GPD, will review the request following the programs' policies and procedures.

In the case where a doctoral student fails to pass or complete a particular degree requirement, the student's committee may recommend the student to a master's degree program. The student will follow the procedure outlined in the preceding paragraph, except that this approach requires supporting documentation from the current committee.

Once the student is accepted to the master's program, the Master's Graduate Program Director will send a memorandum to the Office of the Registrar along with the Notice of Change of Status Form. The memo should clearly note which of the Old Dominion University credits and approved transfer credits may be applied to the master's degree, and which, if any, should be reserved for future doctoral work.

# Dual Degrees in Ecological Sciences (Ph.D.) and Computational and Applied Mathematics, Statistics Option (M.S.)

Statistical skills are much in demand among ecologists including use of appropriate programs of experimental design, analysis in research, and application of the results of that research. This dual degree program allows the student to earn the M.S. degree in Computational and Applied Mathematics (Statistics Option) while also obtaining the Ph.D. in Ecological Sciences. The student must be admitted to each program based on the admission requirements and procedures of the respective departments. Likewise, the student must satisfy all requirements of each degree (M.S. in Statistics outlined below). The student will receive guidance from his or her guidance committee in the Ecological Sciences Program and the Graduate Program Director in the Computational and Applied Mathematics Program. If the student enters the Ph.D. program with a Master's Degree, he or she must complete the required minimum of 48 hours for the Ph.D. program and 30 hours for the M.S. program. If the student enters the program with only a B.S. degree, his or her guidance committee will determine the number of hours beyond 48 that may be required for the Ph.D. degree (the 30 hours in Statistics could count toward part or all of the 78 hour total required).

Requirements for M.S. in Computational and Applied Mathematics (Statistics Option) - The M.S. candidate must complete a minimum of 30 credit hours of coursework designed to fulfill the statistics option. With approval of the Graduate Program Director, up to six of these credits may

be chosen from a field of application (e.g., geology, oceanography, ecosystem analysis, computer science, economics, health sciences, operations research, physics and engineering mechanics) in which the student applies analytical and numerical techniques to another discipline. A master's thesis is not required. All programs of study must be approved by the Graduate Program Director, and substitutions may be made only with his or her approval.

Prerequisite courses for the Statistics option are STAT 531, 532, 535 and 537. At most, two of the listed prerequisite courses can be applied towards the 30-credit degree requirement. In this option, the required courses are STAT 505, 625, 626, 627, 628, 632, 640 and 12 additional credits of approved graduate coursework.

#### **Academic Progress**

Ideal progress:

First Year, First Semester:

Form Advisory Committee

Meet with Advisory Committee to approve Program of Study.

By End of First Year:

Complete Letter of Intent and have approved by Advisory Committee.

By End of Second Year:

Complete the Research Skills Requirement.

By End of Third Year:

Take Candidacy Examination.

Form Dissertation Committee.

Complete Research Prospectus and have approved by the Dissertation Committee.

By End of Fourth/Fifth Year:

Complete Research.

Defend Dissertation.

Each student is responsible for his/her progress in the program. Evaluations of student progress will be performed annually, and a written summary of these evaluations will be included in each student's file. Failure to achieve acceptable levels of progress could result in loss of financial aid. No student should remain in the program beyond the university-defined time limit of 8 years unless there are extreme extenuating circumstances. Students exceeding the 8-year time limit without acceptable extenuating circumstances will be converted to non-degree seeking status and dismissed from the Ecological Sciences Ph.D. Program.