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Student Handbook
2025-2026

- **Revised July 2, 2025**
- **Information compiled by the Graduate Program Administrator**

What is the difference between the Department of Ecology, Evolution, & Natural Resources and The Graduate Program in Ecology & Evolution?

The Department of Ecology, Evolution, & Natural Resources (hereafter, "the Department") was founded in its current form in 1997. It superseded a previous department of Natural Resources, which had a long and successful history focused on undergraduate education and research. The Department is primarily responsible for matters relating to undergraduate education in Ecology and Evolution, Environmental Geomatics, and Environmental Planning curricula. It also provides a physical home for some (but by no means all) of the faculty and students associated with the Graduate Program in Ecology & Evolution (hereafter, the "Graduate Program"). Most faculty in the Department belong to the Graduate Program, but many members of the Graduate Program hail from other departments. Although it was envisioned that the Department would provide administrative and financial support for the Graduate Program, it currently does this to a rather limited extent. There are a few TA and GA lines administered by the Department that typically support students in the Graduate Program. However, most TA support still originates from outside of the Department, principally from TAs within the Division of Life Sciences, School of Arts and Sciences. The Department does not admit graduate students or confer graduate degrees. The chair of the Department is typically not the director of the Graduate Program.

The Graduate Program (hereafter, “the Program”) was founded in the mid 1970s by the well-known ecologists Murray Buell and Paul Pearson. The Program is a multidisciplinary umbrella group consisting of ~85 faculty in many different departments, drawn from three Rutgers Campuses and other locations including the Cary Institute of Ecosystem Studies. The Program defines criteria for graduate admissions, evaluates student progress, and ultimately is responsible for certifying that students have completed the requirements for a graduate degree. The Program runs the weekly seminar series, coordinates the administration of graduate student financial support, and facilitates communication between the university and graduate students (e.g., we forward emails from the School of Graduate Studies (SGS). There are ~ 45 graduate students enrolled in the Program. Operations of the Graduate Program are overseen by the Graduate Program Director, who is elected by the Graduate Program Faculty, and the Graduate Program Administrator. The Program coordinates with both the School of Graduate Studies (SGS) and the School of Environmental and Biological Sciences (SEBS) in matters of fellowship support and various teaching, research, and travel awards. Some graduate programs at Rutgers are congruent with discipline departments (e.g., English, History, Physics). Our Program is much more extensive than that.

The Graduate Program in Ecology and Evolution
Mission Statement and Program Overview

Mission Statement

The Ecology and Evolution Graduate Program at Rutgers University aims to foster a diverse environment rich in critical thinking and open communication. We are committed to mentoring the next generation of scientists to solve 21st century problems and be stewards to our plane.

Program Overview

Program Director (3-year term)

- Representative of Program students and faculty to the School of Graduate Studies and the School of Environmental and Biological Sciences.
- Sets policy for the program in consultation with the faculty.
- Maintains academic standards and quality of program.
- Appoints Admission Committee, Scholastic Review Committee, Curriculum Committee and Seminar Committee.
- Signs many necessary forms such as Ph.D. and Master's Candidacy forms, Credit Transfer forms, Change of Status forms, Extension forms.

Program Administrator

- Support and contact person for all graduate students and faculty.
- Secretarial support to Program Director.
- Keeps files up to date on all students and faculty in program.
- Distributes many necessary forms for graduate students as named above and has Special Permission numbers for courses and Preliminary Proposal forms, among others.

Student Representatives to the Program

- Two students: one post-qualified and one pre-qualified.
- Term runs from fall semester to fall semester.
- Voting power in all matters except faculty appointments and retention, student advancement, examination, or accreditation.
- More information in the By-Laws.

Contact People

and their relationship to you as students

- **Rachael Winfree,** Program Director and Professor
  rachael.winfree@rutgers.edu
  848-932-8746
- **Shaneika Nelson**, Senior Program Administrator
  s.nelson@rutgers.edu
  848-932-3213
- **Denise McNair Sanders,** Departmental Administrator
  Any questions or problems regarding HR, Benefits, payroll, expense reimbursement and building issues.
  denisesanders@sebs.rutgers.edu
  848-932-3210
- **Vinny Andoldi**, Business Assistant
  Any questions or problems regarding purchasing.
  vsa22@sebs.rutgers.edu
  848-932-9632
- **Jennifer Schenk,** Business Specialist
  All aspects of grant management and department finances
  jennifer.schenk@rutgers.edu
  848-932-3212
- **Allison Gradina**, School of Graduate Studies
  All forms post-candidacy goes to Allison and any questions relating your thesis/dissertation format.
  allimera@grad.rutgers.edu
  848-932-7034
- **Janis Roden,** Business Manager, School of Graduate Studies
  jroden@rutgers.edu
  848-932-2286
- **Teresa M. Delcorso-Ellmann**, Senior Associate Dean, SGS
  Director of GradFund
  Teresa knows all there is to know about external funding for grad students.
  delcorso@gradfund.rutgers.edu

Sources of Funding Outside the Program

There are sources of funding outside the Graduate Program, the Department and your advisors. Information regarding funding will be forwarded to you throughout the year as information becomes available. You can find information under funding on the website for the **School of Graduate Studies**, http://SGS.rutgers.edu. Several sources to keep in mind are:

- **GradFund,** the website is a source of much information: http://chaser.rutgers.edu
  This office was developed to assist students in acquiring outside funding. GradFund lists over 3000 sources in its database. Please see the contact information (page 4) for **Teresa Delcorso-Ellmann** if you require more information.

- **ORSP,** this is the Office of Research and Sponsored Programs (ORSP); Their website is http://orsp.rutgers.edu
  Be sure that you have seen either Simona Turcu or Teresa Delcorso-Ellmann at the SGS when your proposal is ready for submission before you submit it to ORSP. In some instances, it is not necessary to submit it to ORSP. Janis and Teresa can help you with that information.

- **Bevier Fellowship:** Competitive yearly fellowship available to all-but-degree (ABD) senior level graduate students. The deadline for application is usually early March. Notices are sent via email and will be posted on the program's site when the applications are due. More information is available here: https://gsnb.rutgers.edu/awards/bevier

- **Conference Travel Awards:** The School of Graduate Studies awards block-grants for travel, conferences, and individual graduate programs at the beginning of each academic year. E&E students will be advised when the competition for these funds will be held yearly.

- **Off-Campus Dissertation Development Awards** are intended for students at the beginning of their doctoral research who would materially benefit from field-specific research opportunities. They are also designed to connect graduate students with our GradFund office, providing seed funding that will help graduate students secure additional grants and fellowships from external funders. Visit the Off-Campus Dissertation Development Awards page to find out more about these awards**.**
  https://gsnb.rutgers.edu/awards/dissertation-development

- **There are other sources available. It is in your best interest to use the websites within and outside the University to research the various options. Your advisors are also a good source of information.**

Timeline for Ph.D. Students

***Please note that before each milestone (Quals, Prelims, Thesis and PhD Defense), you must contact the Senior Program Administrator, Shaneika Nelson (s.nelson@rutgers.edu) to inform her of your plans.**

First Year

- **Select advisor/chairman and advisory committee**:
  You are admitted with an advisor. This person is **tentatively** your committee chair. In the first semester you, together with your advisor, should form an **advisory committee** consisting of your advisor, two other E&E faculty members and a senior level graduate student. It is possible that the faculty on the advisory committee may become a part your qualifying committee. You should talk with other professors to be sure your initial advisor is the best fit given your research interests. Please provide the names of the advisory and qualifying committee members to the Program Administrator for approval of the Program Director.
- **Select your tentative qualifying committee**
  In consultation with your advisor, a committee should be selected comprised of **your advisor (aka committee chair) and three other Ecology and Evolution faculty members** that will advise you on designing your curriculum, as best fits your personalized needs depending on your background and your aspirations. As mentioned above, this may be comprised in part by your advisory committee.
- **Begin taking Core Course Requirements (see Appendix)**
  Advanced Ecology 601 (fall) and Advanced Evolution 602 (spring) is required of all first-year students.

Second Year

- **Tentative dissertation committee selected**
  In consultation with your **advisor,** select **at least two other members of the Ecology and Evolution Program and one person from outside the E&E Program**. The outside member can be from another program at Rutgers or from an entirely different institution, however, the outside member must hold a Ph.D. The Program Director must approve the final committee membership and send that approval to the SGS for final approval.
- **Qualifying exam date set and exam taken** (see Ph.D. Requirements)
  Students should complete this exam by the end of their second year. It must be completed by the end of the first semester of your third year. Failure to complete the exam within the time limit may result in sanctions. **Speak with the Program Administrator prior to the exam to obtain the necessary form.**

  Once the exam has been completed, students must ensure that their **advisor(s) submit an email to Shaneika Nelson, concerning the status of the defense.**
- **Continue with Core Knowledge requirements (see Appendix)**

Third Year

- **Qualifying exam must be complete.**
  The SGS requires at **least one year** elapse between your qualifying exam and completion of your PhD.
- **Core Knowledge requirements must be complete.**
- **Preliminary proposal (Prelim) defense date set and prelim possibly complete.** You must let the Program Administrator know about your prelim defense date and the completion of your prelim.

Fourth Year

- **Preliminary proposal exam complete (**see Ph.D. Requirements)
  See the Program Administrator for the necessary form.

Fifth Year

- Research well under way and writing of dissertation should have begun.

In most cases, students admitted with a B.A. or B.S. will complete their Ph.D. within six academic years. The SGS will allow seven years after initial registration before they question your progress. At the beginning of your seventh year, you are required to apply for a one-year extension to be approved by the Scholastic Review Committee, the Program Director and the Dean of the Graduate School.

The SGS will not allow a student to register after 9 years.

Completion Dates: These vary slightly with the calendar, but the general rule of thumb is:

- **April 1,** for a May dated degree
- **October 1,** for an October dated degree
- **January 6,** for a January dated degree

The most up to date information regarding degree dates and other degree completion information can be found on the SGS website under Degree Application Checklists:
https://grad.rutgers.edu/academics/graduation

Ph.D. Degree Requirements

It is important to note that the Ecology and Evolution Graduate Program requirements for Ph.D. and Master's students are more stringent than the School of Graduate Studies requirements.

You must adhere to those of the E&E Program.

Credits

- **72 total credits** are required.
  30 or more Course and 24 or more Research. The combined total must be 72 to 75.
- No more than 12 credits of undergraduate level (300 and 400) total and no more than 6 of those 12 at the 300 level.
- Only one course with a grade of "C" will be counted toward your degree.
- All research credits must have a grade of "S".

GPA

- You must maintain a GPA of **3.0**

Transfer of Credits

- Credits can only be transferred after 9 matriculated credits have been completed successfully at Rutgers.
- Maximum 21 credits required for the Ph.D. can be transferred after completing the required 9 at Rutgers.
- A maximum of 12 credits from non-matriculated course work at Rutgers may be transferred.
- Only courses with a grade of "B" or better will be considered for transfer.
- Courses must meet the standards of graduate courses and cannot have been taken more than 6 years earlier.
- Approval must be obtained from the Program Director and the Dean of the SGS. You can email the Senior Program Administrator (Shaneika Nelson) to obtain the required form.
- Approval will be granted only for those courses pertinent to your field.

Core Knowledge Requirements (This section is a synopsis taken from the complete document. Please be sure to read the complete document which is Appendix #2 of this handbook for a complete understanding of the Core Knowledge requirement.)

- All students must complete **Advanced Ecology** (16:215:601) and **Advanced Evolution** 16:215:602 in their **first year**.

CORE KNOWLEDGE COMPETENCE
The following core areas of knowledge are expected to be attained by all PhD students by the time of their oral qualifying examination at the end of their second or beginning of their third year. An annotated list of recommended readings or similar resources that could be used in support of each area will be available. Students must also be familiar with important past contributors to ecological and evolutionary knowledge and milestones of intellectual development in each field.

Core Areas:

- **Individuals, Populations, and Communities**
- **Phylogenetics and Systematics**
- **Ecosystems**
- **Biodiversity, Temporal and Spatial Scale**
- **Analysis of Date**
- **Academic Integrity**

CORE TOOL KNOWLEDGE
(technical skills achieved through hands-on research, workshops, or courses)

Information gathering and analysis

- Statistics (univariate statistical tests [***t***, chi-square]; basic analysis of variance; simple linear regression)
- Molecular tools (DNA, gene expression, genomics, genetic variation)
- Morphometrics (phenotypic variation)
- Remote sensing and GIS (mapping, distribution, spatial variation)
- Building trees and networks of relationships of individuals, populations, and species
- Metrics and methods for evaluating community, genetic and/or taxonomic diversity and similarity
- Genetic analysis of molecular data (DNA sequencing, DNA fingerprinting, DNA barcoding, genome analysis, gene expression)
- How to use basic web tools (NCBI/Genbank, GBIF, Google Earth, library databases, MG-RAST…)

Information dissemination and communication

- How to write a good scientific paper
- How to design a good poster
- How to give a good lecture (PowerPoint, chalk talk, etc.)
- Preparation of information-rich graphs and tables (math and stat programs, Adobe Illustrator, WORD, etc.)
- Preparation of illustrations and figures for publication (Adobe Photoshop, Illustrator, etc.)
- Understanding copyright
- The peer-review process (how to be reviewed and be a reviewer)

Teaching and outreach skills

- Giving a good lesson to children and adults
- Designing active learning methods
- Evaluating student learning
- Mentoring skills
- Communicating science to the public

Qualifying Examination (Quals)

To test the basic knowledge of ecology, evolution, and other fields pertinent to your anticipated area of specialization.

- Minimally, those areas covered in the core knowledge requirements will be examined.
- Areas to be covered should be discussed with your committee at least 3 months prior to your exam.
- The Senior Program Administrator (Shaneika Nelson) must be notified of your plan to take your qualifying exam in advance of the exam date. The administrator can assist you with reserving a room for your exam.
- Candidacy forms to be signed at your Quals can be found **HERE**. You may also choose to email the Senior Program Administrator for a fillable PDF of the form.
- Before your qualifying exam, you must complete the Qualifying Exam Form and email it to the Senior Program Administrator. In your email, please include the names and email addresses of your qualifying exam committee members.
- Once you pass your qualifying exam, your advisor will notify the administrator, who will then obtain the required signatures from you and your committee members on the form. After the signatures are collected, the Program Administrator will submit the form to the School of Graduate Studies (SGS) and inform you once it has been processed. At that point, you will officially transition from a PhD student to a PhD candidate.
- Exam may be oral, written or both and designed at the discretion of the chair of your committee.
- Committee consists of your advisor and three other members of the E&E graduate program faculty.
- A failed Qualifying Exam may be retaken once, at the discretion of your committee. A second failure will terminate your candidacy for your Ph.D.
- If we are able to meet in person you will need to work with the Program Administrator well in advance so that a room suitable for the qualifiers can be scheduled**.**

Preliminary Dissertation Examination (Prelims)

- To present a detailed written research proposal of your Ph.D. research for approval to your dissertation committee. This proposal should be presented to your committee **at least three weeks prior** to your exam date.
- Your dissertation committee consists of **your advisor, two other members of the E&E faculty and one person from outside the E&E program faculty**. This person can be from within Rutgers or from another institution entirely. The outside member must hold a Ph.D.
- The proposal cannot be approved if there is more than 1 dissenting vote from the committee members.
- The outside member of your dissertation committee does not need to be present at your prelim exam but must approve the document.
- Committee members may be changed with the approval of your chair and the Program Director.
- Pick up the necessary form to be signed at the Prelim from the Program Administrator.
- If you can meet in person under the most current university pandemic regulations, let the Program Administrator know well in advance so that she can aid in scheduling the appropriate room.
- Before your Preliminary Dissertation Examination, you must email the Senior Program Administrator for a copy of the department's Prelims Form. You must pre-fill the appropriate sections of the Prelims Form and email it to the Program Administrator. In your email, please include the names and email addresses of your qualifying exam committee members. You will also need to provide the name, email, professional title and institutional affiliation.

Students normally take their qualifying exam first and their preliminary exam at a later date. However, if your committee feels that you are advanced in your research, they may advise taking the preliminary exam first. This allows them to constructively assess your research before too much time has passed.

Dissertation

- **The actual dissertation must be in accordance with the School of Graduate Studies regulations**. Before drafting the document, get a copy of the style guide from the SGS online.
- The SGS holds workshops every semester on dissertation preparation. It is to your advantage to attend one of these workshops in the year before you plan to defend.
- A final draft should be presented to your **dissertation committee and the Program Director (cc to the Program Administrator) at least three weeks prior** to your defense. **If the committee or Program Director deems that the draft is not complete enough to defend, your defense will be postponed**.
- If university regulations allow at the time of your defense, pick up your forms from the SGS prior to your defense. They will be the same forms that you used for your Qualifying Exam. You will receive other information with these forms that you will need for your defense and to successfully complete your degree.

- The SGS must verify the format of the dissertation and any necessary changes must be made. If your committee wants more changes at the time of the defense, these changes must be incorporated into the final document.
- The final revised "perfect" dissertation must be turned in to the SGS on, or preferably before, the completion dates of early April, October 1 and early to mid-January. The April and January dates may change yearly so please check the SGS website for the current year. https://gsnb.rutgers.edu/academics/how-apply-degrees
- Electronic submission of the dissertation is mandatory. The submission site is located on the SGS website under Current Students. May degrees **must** be submitted by the April deadline.
- Title page must be signed in **black ink**.
- Title page and signed Candidacy Form must be hand delivered to the SGS to complete the process.
- The Program Administrator can help with any questions. The Program Administrator should be made aware of your defense timetable so that she can be proactive in helping you before problems arise.
- **A checklist is provided every year by the Program Administrator and another from the SGS that you should follow as you finish your work.**

Defense

- Obviously, you must schedule the defense at a time convenient for your committee members. Plan ahead, these people are very busy. "**Plan ahead**" means **months** not weeks in advance. **This cannot be stressed enough**.
- Once the **outside member** has been decided upon, their name and professional address and affiliation must be **submitted to the Program Director and the SGS for approval**.
- If in-person meetings are allowed under the most current pandemic regulations and your outside member cannot be present at the defense, he or she must submit a letter/email to the Graduate Program Director stating that they have read and approved the dissertation. The Program Director will sign and initial the outside member's name.
- If in-person meetings are allowed under the most current pandemic regulations be sure that you have **scheduled a room** for your seminar and a room for your actual defense. The Program Administrator can help with this. Keep in mind that rooms book quickly at the end of the semester as people rush to defend, so **plan ahead**.
- If in-person meetings are not allowed the defense seminar and the defense may be held on WebEx or Zoom.
- It is ultimately up to the committee members to decide if they will allow a defense to be scheduled during the summer break. Scheduling your defense over the summer break is not encouraged by the program.

Master's Requirements

There are two options in the Master's Program.

Master's with thesis

Credits

- **30 total credits** are required.
  24 course and **6 research**
- No more than 12 credits of undergraduate level courses (300 and 400) total and no more then 6 of those 12 at the 300 level.
- Only one course with a grade of "C" will be counted toward your degree.
- All research credits must have a grade of "S" (satisfactory)

GPA

- You must maintain a GPA of **3.0.**

Transfer of credits

- 9 credits must be completed (matriculated) at Rutgers before outside credits can be transferred.
- Maximum 40% of the total credits may be transferred from another institution or from non-matriculated course work at Rutgers.
- Only courses with a grade of "B" or better will be considered.
- Courses must meet the standards of graduate courses and cannot have been taken more than 6 years earlier.
- Approval of transfer credits must be obtained from the Program Director and the Dean of the SGS. The form is found on-line at the SGS website.
- Approval will be granted only for those courses pertinent to your field.

Core Course Requirements

- **Advanced Ecology and Advanced Evolution are required** of all first-year students.
- One course in **statistics**, either as a graduate or undergraduate is suggested.
  Members of the students committee may require remedial course work, as they deem necessary. These may include classes that cannot be counted towards the degree.

Thesis and Committee

- The thesis committee consists of at **least three members of the E&E Program Faculty,** including your advisor**.**
- One extra committee member may be appointed from outside the faculty but is not necessary.
- Formatting guide can be found online.
- Candidacy forms for the master's degree can be found online at the SGS website under Current Students; Forms; Master's Degree Application.
- Electronic submission of the thesis is mandatory. The final revised "perfect" thesis must be turned into the SGS on, or preferably before, the completion dates of early April, October 1 and early to mid-January. The April and January dates may change yearly so please check the SGS website for the current year. https://gsnb.rutgers.edu/academics/how-apply-degrees
- Title page must be signed in **black ink** if the committee meets in person.
- During the pandemic, the rules for completion of the degree can be found on the SGS website: https://gsnb.rutgers.edu/academics/how-apply-degrees. Please follow the directions on the top of the Master's form.

Non-thesis Master's

Credits

- **30 total course credits,** no research credits.
- No more than 12 credits can be selected from undergraduate level courses (300-400) and only 6 of those 12 can be from the 300 level.
- Only one course with a grade of "C" will be counted toward your degree.

GPA

- Must maintain a GPA of **3.0**

Transfer of credits

- 9 credits must be completed (matriculated) at Rutgers before outside credits can be transferred.
- Maximum 40% of the total credits may be transferred from another institution or from non-matriculated course work at Rutgers.
- Only courses with a grade of "B" or better will be considered.
- Courses must meet the standards of graduate courses and cannot have been taken more than 6 years earlier.
- Approval of transfer credits must be obtained from the Program Director and the Dean of the SGS. The form is found on-line at the SGS website.
- Approval will be granted only for those courses pertinent to your field.
  to your field.

Core Course Requirements

- **Seminar in Ecology is required** of all first semester students.
- One course in **statistics,** either as a graduate or undergraduate is suggested.
- Members of the students committee may require remedial course work, as they deem necessary. These may include classes that cannot be counted towards the degree.

Committee and Essay

- The committee consists of **at least three members of the E&E Program Faculty,** including your advisor.
- Typically, the Non-thesis master's requires an essay be written that is evaluated by the committee. This essay does **not** need to be turned into the SGS with your candidacy form.
- Candidacy forms for the master's degree can be found online at the SGS website under Current Students; Forms; Master's Degree Application.
- Electronic submission of the form is mandatory. The form must be turned in to the SGS on, or preferably before, the completion dates of early April, October 1 and early to mid-January. The April and January dates may change yearly so please check the SGS website for the current year. https://gsnb.rutgers.edu/academics/how-apply-degrees
- Title page must be signed in **black ink** if the committee meets in person.
- During the pandemic, the rules for completion of the degree can be found on the SGS website: https://gsnb.rutgers.edu/academics/how-apply-degrees Please follow the directions on the top of the Master's form.

Non-thesis Master's should be completed within two consecutive calendar years and is considered a terminal degree.

A student wishing to complete a Ph.D. after a Non-thesis master's will have to re-apply for admission to the Program and satisfy all admissions requirements.

General Information That Applies to All Students Regardless of Degree Sought

Registration Information

- **Full-time** is **9** credits.
- **TA**s must register for **6E** credits: **16:215:877**
- **GA**s must register for **6E** credits: **16:215:866**
- **Fellowships** must register for **16:215:811 with 0 credits**. This allows your fellowship to be recorded on your transcript for future reference. There is no other way for anyone looking at your transcript to know that you were on a Fellowship. **This is important information in the future**.
- **You may register for up to 16 credits**. This 16 includes your 6E for a TA or a GA.
- If you are taking under 16 credits in total with your TA/GA and courses, you can take up to the 16 by registering for **research credits (16:215:701 or 702)** with your advisor. (See below before you deice to do this).
- You should plan to complete your Ph.D. with the required 72 and not over to 75 credits. This will require some planning on your part to space out your credits over the usual 5 to 6-year period.
- If you are taking a **300-400 level course for graduate credit**, be sure to use the **G** prefix.
- If you are taking a course **"not for credit**", use the **N** prefix. You will do all the work but will not take the final exam and you will receive an S or U grade.
- **"N"** allows the course to show on your transcripts.
- If you simply ask the professor to let you sit in on the course (**audit**) and do not register, it will not show on your transcripts.
- **Matriculation Continued** requires a Special Permission number and is only to be used by pre-qual PhD students and master's students. Master's students can only use this designation **if they are not at the thesis writing stage. You can register for Matriculation Continued for a maximum of two semesters.** If you are writing your thesis, you must register for at least one research credit whether you are on campus or not.
- Once you have completed 71 credits (any combination of course and at least 24 research) you need register for only 1 research credit to be considered full-time by the SGS. However, if you register for only 1 research credit, you are considered part-time for the purposes of the campus health centers and most student loan companies. Therefore, if you plan to use the campus health centers, or need to defer loans, **please contact the Program Administrator** to complete the correct forms for the situation.
- If you need to be full-time for any reason other than health and student loans, contact the Program Admin for the SGS form that will allow this.

Continuous Registration

- You must remain registered every fall and spring semester, either with course and research credits or as Matriculation Continued as the situation warrants. **Summer session registration is not required.**
- **Matriculation Continued** is to be used only if you are on leave from your studies and are either a master's student or a pre-qualified Ph.D. Student. There is a two-semester limit on registering as Matriculation Continued.
- **One (1) research credit is** considered full-time by the SGS for all doctoral students who have completed 71 total degree credits in any combination.
- **Three (3) research credits** are required to be considered full-time by the SGS of students working at the University on dissertation or thesis-related research with less than 71 total credits.
- Any lapse in registration will require an Application for Re-admission form to be completed and approval of the Program Director and the Dean of the SGS, and the payment of a restoration fee.

Change of Status

- If you decide to change your degree status in any way, i.e., master's student to doctoral student or vice versa, a **Change of Status form must be sent to the SGS**.
- The form can be found online at the SGS website.
- It must be approved by the Graduate Program Director and the SGS.

Incomplete Grades

- Incomplete grades must be made up within one year (i.e., an incomplete in the fall semester must be completed by the end of the next fall semester). The SGS has become very strict about this policy so do not expect to be granted an extension.

DLS TA Information

- For all students that are applying for a DLS TA position for the next academic year, the required Endorsement Form **MUST** be signed by the **Graduate Program Director**. Instead of emailing the Graduate Program Director, please send your signed Endorsement Form via email to the Senior Program Administrator who will review the form and obtain the appropriate signature.

Annual Individual Development Plan

- An **IDP** must be completed by **ALL** students each year. The IDP is reviewed and approved by your advisor and the Graduate Program Director.
- Appropriate recommendations are made if requirements are not being met, if your GPA falls below 3.0, or other problems arise.
- Students may be placed on academic probation or dismissal from the program may be recommended based on the results of the IDP.

Advisory Committee/Qualifying Exam Committee Members

- Once your advisory committee has been decided upon, the names of the members should be given to the Program Administrator. In the case of Ph.D. students these faculty may or may not become your Qualifying Exam Committee. The Program Director must approve all committees. Please keep the Program Administrator apprised of any changes in your committee make-up. Those changes will be made known to the Graduate Program Director.

Change in Address, Phone or E-mail

- The Program Administrator should have your most current contact information at all times, both on and off campus. Please make it a priority to update the Program Administrator whenever your contact information changes.

Summer Research/Course Credits

- You may register for summer research or course credits. If you were a full-time TA in the previous two semesters (fall and spring) then you can register for up to 24 credits for the entire year. This will typically mean that you can register for 4 research or course credits over the summer and your TA tuition remission will cover these credits. This assumes you have registered for 10 course and research credits in each of the previous fall and spring semesters.
- If you are being supported as a **GA on an external grant** (NSF, NOAA, USDA etc) please check with your advisor and/or the business specialist handling your grant **BEFORE** registering for summer credits. The money for summer credits may not have been budgeted into the grant.
- One reason to register for summer research credits is that if you are planning on doing research or writing out-of-state after your qualifiers, you need to accrue as many research credits as possible (you will need 24 research credits to get your PhD) before you leave the state. Then you may register for 1 research credit while out-of-state, pay the student fees and the out-of-state tuition on one credit only. This could save you quite a bit of money. Your student fees are directly related to the number of credits you take, and your tuition is related to credits and whether you are in or out-of-state.
- You register for summer research credits through the summer session. If you do not see your advisor listed in the research section of the summer session, contact the Program Administrator for help.

Time to Degree

- In most cases, students admitted with a B.A. or B.S. will complete their Ph.D. within six academic years. The SGS will allow seven years after initial registration before they question your progress. At the seven-year limit, you may apply for a one-year extension to be approved by the Scholastic Review Committee, the Program Director and the Dean of the SGS.

Knowledge requirements for PhD students in the Graduate Program of Ecology & Evolution, Rutgers University

The Program has developed a list of topics representing the ***'core knowledge'*** that every PhD student graduating from the Program should have. We have also developed a parallel list of ***'core tools'***, used in ecology and evolution today. Mastery of a high proportion of these tools would develop over the course of the student's participation in the Graduate Program.

The list of 'core knowledge' topics is accompanied by an annotated reading list of texts, historically-important papers, and/or current review papers that would provide a basic level of understanding of the specified core knowledge topics. The Curriculum Committee in consultation with Program faculty will develop and update this list of resources.

Students are required to complete a brief account on each of the five topic areas (1-3 pages total) describing their developing knowledge in the five topic areas as part of the annual report that is currently filled out by all students. This account should describe how the student has met, or is planning to meet (for first-year students), the learning goals in each topic area (i.e., courses, independent reading, workshops, etc.). With advice from the student's first-year advisory committee, all topic areas should be addressed in the first two years of study. The annual reports will be available to the qualifying examination committee, to be used at their discretion as part of the oral examination to test the student's knowledge in each topic area.

Students will be required to complete the oral qualifying examination by the fall semester of their third year, at the latest. Failure to do so would result in potential sanctions such as loss of financial support. Failure to demonstrate adequate mastery of core knowledge in each topic area at the qualifying examination would result in a decision of "failed; allowed to retake once" at the exam.

Under this system, the only currently required course for Ph.D. students is the 1-credit seminar course, which familiarizes students with the faculty and their research interests. As a part of this class, every participating faculty member should include one historic paper on their list of papers for the students to read, and then discuss the importance of this paper in their presentation to the class.

We believe this system will ensure that students leave the program with basic knowledge of the topics that constitute our field(s), and also allow considerable flexibility for students to meet the requirements. Students should take responsibility for their own education, and this system requires that they actively consider what to study, how to study each topic, and how to demonstrate their mastery of basic concepts.

Curriculum Committee
(Approved by Graduate Program Faculty, May 2010)

CORE KNOWLEDGE COMPETENCE

The following core areas of knowledge are expected to be attained by all PhD students by the time of their oral qualifying examination. This knowledge may be obtained through formal coursework (both graduate and advanced undergraduate courses, including if necessary independent studies and special topics courses), informal 'reading' guided by a professor, workshops, courses at institutions other than Rutgers (note, might not be covered by Rutgers tuition), and/or through not-for-credit and extra-curricular independent reading and study. An annotated list of recommended readings or similar resources that could be used in support of each area will be available.

It is expected that in addition to knowledge of current theory and factual content, students will be familiar with important past contributors to ecological and evolutionary knowledge and milestones of intellectual development in each field.

- Individuals, Populations, and Communities
  genes, alleles, gene expression, molecular and non-molecular variation, abiotic factors, genetics, ecophysiology, basic population biology, mechanisms and modes of species interactions, population, functional, and single cell genomics, niche analysis, metapopulations, natural selection, mutations, behavior, community assembly rules, dispersal

- Phylogenetics and Systematics
  adaptation, molecular and morphological systematics, species identification, niche conservatism, classification and naming of groups, phylogenetic models and theory, evolution of the target group of organisms of the student's project, horizontal gene transfer, gene evolution

- Ecosystems
  food webs, energy flow through ecosystems, nutrient cycling, global change, co-evolution, symbiosis, biome evolution, human influence over biological systems

- Biodiversity, Temporal and Spatial Scale
  history of life and evolution of biodiversity, tree of life, geographic patterns of species distributions, biodiversity and biomes, biogeography, conservation ecology, restoration ecology, geologic processes and fossil records, origin of life

- Analysis of Data
  basic probability theory and distributions, hypothesis testing, model choice

- Academic Integrity
  ethical rules and practices with regards to publication, collaboration, and information sharing

CORE TOOL KNOWLEDGE
(technical skills achieved through hands-on research, workshops, or courses)

Information gathering and analysis

- Statistics (univariate statistical tests [***t***, chi-square]; basic analysis of variance; simple linear regression)
- Molecular tools (DNA, gene expression, genomics, genetic variation)
- Morphometrics (phenotypic variation)
- Remote sensing and GIS (mapping, distribution, spatial variation)
- Building trees and networks of relationships of individuals, populations, and species
- Metrics and methods for evaluating community, genetic and/or taxonomic diversity and similarity
- Genetic analysis of molecular data (DNA sequencing, DNA fingerprinting, DNA barcoding, genome analysis, gene expression)
- How to use basic web tools (NCBI/Genbank, GBIF, Google Earth, library databases, MG-RAST…)

Information dissemination and communication

- How to write a good scientific paper
- How to design a good poster
- How to give a good lecture (PowerPoint, chalk talk, etc.)
- Preparation of information-rich graphs and tables (math and stat programs, Adobe Illustrator, WORD, etc.)
- Preparation of illustrations and figures for publication (Adobe Photoshop, Illustrator, etc.)
- Understanding copyright
- The peer-review process (how to be reviewed and be a reviewer)

Teaching and outreach skills

- Giving a good lesson to children and adults
- Designing active learning methods
- Evaluating student learning
- Mentoring skills
- Communicating science to the public