2017-2018 Information

**Biology Department Chair**
Susan Fahrbach

**Biology Graduate Committee:**
Miriam Ashley-Ross, Director of the Graduate Program
David Anderson
Michael Anderson
Jim Curran
James Pease
Fadi Marayati, Graduate Student Representative

**URLs**

Graduate School – Current Graduate Student Resources
[http://internal.graduate.wfu.edu/students/](http://internal.graduate.wfu.edu/students/)

Graduate School Bulletin – Graduate School:
[http://internal.graduate.wfu.edu/bulletin.html](http://internal.graduate.wfu.edu/bulletin.html)

Graduate Student Handbook – Graduate School:
[http://internal.graduate.wfu.edu/docs/academics/GradStudentHandbook.pdf](http://internal.graduate.wfu.edu/docs/academics/GradStudentHandbook.pdf)

Graduate Student Grievance Procedures
[http://internal.graduate.wfu.edu/docs/academics/GradStudentHandbook.pdf](http://internal.graduate.wfu.edu/docs/academics/GradStudentHandbook.pdf)

Graduate Student Association
[http://www.gsa.graduate.wfu.edu/](http://www.gsa.graduate.wfu.edu/)

Graduate School Thesis and Dissertation Instructions
[http://internal.graduate.wfu.edu/students/graduationrequirements.html](http://internal.graduate.wfu.edu/students/graduationrequirements.html)

Graduate School Mentoring Relationship Between Graduate Students and Advisors Statement
[http://internal.graduate.wfu.edu/students/documents/MentoringPhilosophy_statement0809.pdf](http://internal.graduate.wfu.edu/students/documents/MentoringPhilosophy_statement0809.pdf)

WFU Biology Department
[http://college.wfu.edu/biology/](http://college.wfu.edu/biology/)

Graduate Student Handbook – WFU Biology Department
[http://college.wfu.edu/biology/graduate/grad-forms/](http://college.wfu.edu/biology/graduate/grad-forms/)
Table of Contents
Guide to M.S. and Ph.D Programs in Biology At Wake Forest

Contents
2017-2018 Information............................................................................................................................... 2
Table of Contents........................................................................................................................................ 3
Guide to M.S. and Ph.D Programs in Biology at Wake Forest University.................................................. 4
A. The Graduate Committee....................................................................................................................... 4
B. General Graduate Program Requirements and Features........................................................................ 4
  1. Graduate Advisor ................................................................................................................................ 4
  2. Graduate Advisory Committee ........................................................................................................... 5
  3. Graduate Examination Committee ..................................................................................................... 5
  4. WFU Graduate Faculty Status ............................................................................................................. 6
  5. Minimum GPA Required to Maintain Financial Support ................................................................. 6
  6. Participation in the Departmental Seminar Program ......................................................................... 6
  7. The Prospectus .................................................................................................................................... 6
  8. Teaching and Teacher Training ........................................................................................................... 7
  9. Responsible Conduct of Research Requirements ............................................................................ 8
  10. Safety Training .................................................................................................................................. 8
  11. Funding Opportunities ...................................................................................................................... 8
  12. Biology Graduate Student Information Form ................................................................................... 9
  12. Biology Graduate Student Annual Evaluation .............................................................................. 9
C. Switching Advisors, Switching Degree Programs and Additional Support ............................................. 9
  1. Switching Advisors .............................................................................................................................. 9
  2. Switching Degree Programs .............................................................................................................. 10
  3. Additional Funding ............................................................................................................................. 10
D. M.S. Degree Program: Additional Requirements and Schedule ......................................................... 10
  1. Course work ...................................................................................................................................... 10
  2. Departmental Seminar ...................................................................................................................... 10
  3. M.S. Degree Candidacy ..................................................................................................................... 11
  4. Thesis Preparation and Final Examination ........................................................................................ 11
  5. M.S. Final Examination ...................................................................................................................... 11
  6. Scheduled Deadlines for M.S. Students ............................................................................................ 11
E. Ph.D. Degree Program: Additional Requirements and Schedule ......................................................... 13
  1. Coursework ....................................................................................................................................... 13
  2. Seminars............................................................................................................................................ 13
  3. Teaching Requirement for the Ph.D. ................................................................................................. 13
  4. Ph.D. Preliminary Exam and Advancement to Candidacy .............................................................. 13
  5. Dissertation Preparation and Final Examination ............................................................................. 14
  6. Final Examination .............................................................................................................................. 14
  7. Scheduled Deadlines for Ph.D. Students .......................................................................................... 15
Advisory Committee Meeting Form ......................................................................................................... 18
Guide to M.S. and Ph.D. Programs in Biology at Wake Forest University

Welcome to the Graduate Program in Biology at Wake Forest University. It is our sincere hope that together we can make your experiences in the department personally rewarding and provide an atmosphere conducive to your continued growth as professional biologists. To help you understand how these programs function, and to serve as a useful reference for deadlines and requirements, we have prepared this document describing the essential features of our M.S. and Ph.D. programs. Other documents that contain important information are the Graduate School Bulletin, the Graduate School’s Graduate Student Handbook and Dissertation and Thesis Instructions. Links to these documents and other important resources can be found on page 2 of this Handbook.

NOTE: Biology Graduate Students are bound to the deadlines and requirements set out in the Graduate School Bulletin for their year of entry and to those in the Department of Biology’s Graduate Student Handbook for their year of entry.

A. The Graduate Committee

The Graduate Committee is a departmental committee consisting of the Chair of the Committee, three to four other faculty members, a graduate student member, and the Chair of the Department of Biology (ex-officio). It is the responsibility of the Committee to evaluate all applications for admission to the graduate program, make recommendations for financial aid to the Dean of the Graduate School, and monitor the progress of graduate students. In addition, this Committee is responsible for making recommendations concerning continuing improvement in the graduate programs. To this end the Committee actively solicits suggestions from students and staff. Any student should also feel free to consult the Committee or its Chair for assistance in dealing with any problems that cannot be resolved through other means.

B. General Graduate Program Requirements and Features

Requirements by the University for the M.S. and Ph.D. are described in the Graduate School Bulletin. Included are minimum requirements for course work, residency in the program, admission to degree candidacy, etc. It is the student’s responsibility to make sure that all requirements in both the Graduate School Bulletin and the Department of Biology Graduate Student Handbook are met.

1. Graduate Advisor

The Graduate Advisor (hereafter referred to as the Advisor) is a member of the graduate faculty and is the primary mentor who guides the student’s research. During the process of choosing an Advisor, students should familiarize themselves with the research interests and philosophies of the various faculty members. The faculty member must indicate their willingness to assume the role of Advisor by sending an email stating such to the student, with copy to the Graduate Program Director; the arrangement is subject to the approval of the Chair of the Department of Biology.

Timeline for selecting the Graduate Advisor

a. Most students enter the graduate program already knowing which lab they will enter. In those cases, students entering in the Fall semester must select an Advisor by October 15. Students entering the program in the Spring semester must select an Advisor by February 28.

b. Some students may wish to do a short rotation through 2-3 labs before selecting an Advisor. All
rotations must take place during the first semester of graduate study. Intention to rotate through multiple labs, and willingness of potential mentors to host the student, must be indicated (via email) to the Graduate Program Director by September 30 (for students entering in Fall semester), or February 10 (for students entering in Spring semester).

A student may subsequently switch Advisors if unusual circumstances warrant such a change. A link to the University’s Statement of Philosophy of the Mentoring Relationship between Graduate Students and Advisors can be found on page 2. Both graduate students and mentors are strongly encouraged to read it before making a formal commitment to each other.

2. Graduate Advisory Committee
Committee members should be chosen by the student in consultation with their Graduate Advisor, and will consist of the following individuals:

Master’s Advisory Committee
Graduate Advisor
1 Biology Faculty Member
1 Biology or other WFU Faculty
Minimum total: 3 faculty members

Ph.D. Advisory Committee
Graduate Advisor
3 Biology Faculty Members
1 Graduate Faculty not in WFU Biology*
Minimum Total: 5 faculty members
*May be a non-WFU Faculty Member as approved by the Graduate School

Once constituted, the Advisory Committee assumes the responsibility for overseeing the successful completion of the degree program. The entire committee, in consultation with the student, will be responsible for advising the student in the completion of his/her degree program. These responsibilities include setting requirements for specific course work; drafting, administering and evaluating the preliminary examination (for Ph.D. only); critically evaluating the research prospectus; providing regular review of the student’s progress toward the completion of the degree; and providing editorial input to the drafting of the student’s thesis or dissertation.

The student should freely consult members of their Advisory Committee for advice and assistance in research and other appropriate aspects of the student’s degree program. To ensure that the Advisory Committee is kept well informed of the student’s progress toward the completion of his/her degree program, the Advisory Committee should be convened as specified in the Scheduled Deadlines for the M.S and Ph.D. degrees (see below).

3. Graduate Examination Committee
As indicated in the Graduate School Bulletin, the Advisory Committee and the Examination Committee are independently appointed. In the vast majority of cases, the Advisory Committee members will be appointed as the Examination Committee.
**M.S. Examination Committee**

- Graduate Advisor (First Reader)
- Biology Faculty Member (designated as Second Reader)
- WFU Faculty Member from Biology or other department

**Ph.D. Examination Committee**

- Graduate Advisor
- Two members of the major department *
- Representative from the field within or outside the Department *
- WFU faculty from outside the major department **
- *usually a member of the student’s advisory Committee
- **Must be a member of the WFU Graduate Faculty, representing the Graduate Council and acting as Chair of the Examination Committee

**4. WFU Graduate Faculty Status**

All members of the M.S. and Ph.D. Examination Committees must be members of the WFU Graduate Faculty. Most WFU faculty members in the relevant departments are members of the Graduate Faculty. Non-graduate faculty WFU Faculty members and faculty members from outside of Wake Forest can be granted Temporary Graduate Faculty Status.

To obtain Graduate Faculty Status for a non-WFU faculty member, send the committee member’s CV to the Biology Graduate Program Director along with a written justification as to the importance this committee member to the student’s academic progress. These items will be forwarded to the Dean of the Graduate School who will grant Temporary Graduate Faculty status.

**5. Minimum GPA Required to Maintain Financial Support.**

Students are required to maintain a GPA of at least 3.0 (B average). Students who earn a grade below “B” in their first semester must meet with the Graduate Committee for counseling. Beginning with the grade report at the end of their second semester, students whose GPA falls below 3.0 will be placed on academic probation for a one-semester period in which the GPA must be brought back up to 3.0 or higher. Failure to do so will result in dismissal from the Graduate School.

**6. Participation in the Departmental Seminar Programs**

There are two arms of the seminar program in the Department of Biology: (1) Frontiers in Biology seminars – these bring high-profile scientists from outside the University to share their research. FIB seminars are held generally once per month, and **attendance by graduate students is required.** (2) Other special seminars – these may be internal speakers (such as graduate students presenting their thesis/dissertation research) or external guests. Attendance at these seminars is encouraged, but not required. A schedule of seminars for the upcoming semester is sent via email at the beginning of the term. Graduate students are encouraged to suggest potential seminar speakers for future semesters. See the Chair of the Seminar Committee for details.

**7. The Prospectus**

For graduate students in the WFU Department of Biology, a prospectus is a formal document that describes the plan for the research, including an appropriate review of the current literature, distributed to the student’s advisory committee. The prospectus for Ph.D. students should follow the

Guide to Biology M.S. and Ph.D. Programs, 2017-2018
format expectations of the project narrative (Project Description and Project Summary) sections of NSF proposals, within the 15 page single-line spacing limit of NSF Project Descriptions.

For PhD students, the prospectus must be completed and approved, and notification of approval sent to the Graduate Committee, by the end of the third semester of enrollment, to improve the chance that the student will follow an acceptable timetable for his/her program. If extenuating circumstances arise, the advisory committee can recommend an extension to the fourth semester, subject to approval by the Graduate Committee at least one month before the end of the third semester. Failure to have a completed and approved prospectus by the beginning of the fourth semester (or fifth semester in the case of an extension) will result in dismissal from the program.

For Master’s students, the same format of a NSF proposal should be followed, with the exception that the prospectus may be shorter (typically under 10 pages). The prospectus should be completed and approved, and notification of approval sent to the Graduate Committee, by the end of the second semester of enrollment. If extenuating circumstances arise, the advisory committee can recommend an extension to the third semester, subject to approval by the Graduate Committee at least one month before the end of the second semester. Failure to have a completed and approved prospectus by the beginning of the third semester (or beginning of the fourth semester in the case of an extension) will result in dismissal from the program.

The prospectus should be an original document, produced by the student in consultation with his/her graduate advisor. It is not necessary to have preliminary data for the prospectus. It is more important that the student has reviewed the current literature, developed testable hypotheses, and outlined a practical and rational series of tests of those hypotheses. As the prospectus serves as the basis for the student’s research project, the timely approval of the prospectus offers significant protection to the student and serves as the first milestone in a timely completion of a WFU biology graduate degree. Consequently, deadlines will be strictly enforced by the Graduate Committee to ensure that the prospectus be submitted on time.

8. Teaching and Teacher Training

All students that will be teaching (M.S. students supported by a TA and all Ph.D. students) must complete the WFU Graduate School and the Biology department TA training when they arrive on campus. Students must complete training before entering the classroom. The standard work load for a TA is 15-20 hours per week during the academic year. This translates to 2 core lab sections (~16 students each) in a semester.

Ph.D. students are required to have two semesters of teaching experience as part of their degree, generally as a teaching assistant in one of the core laboratories in the WFU Department of Biology. To fulfill the Ph.D. teaching requirement, students must be enrolled as Ph.D. students. Teaching as a Masters degree student does not satisfy the Ph.D. requirement.

If the student wishes to use a different teaching experience to fulfill the requirement, they must obtain prior approval of their advisory committee and of the Graduate Committee. Adequate documentation must be provided prior to the beginning of teaching to the Advisory Committee and the Graduate Committee (a syllabus, a letter from the professor running the class detailing the duties of the TA, etc).

A student’s advisory committee can request that a student teach a specific class in the Wake Department of Biology, consistent with furthering the student’s career. These requests can be made of the Core Coordinator, although there are no guarantees of specific placements.

A student can lose their stipend and their TA position if they do not perform adequately in the
classroom. The core curriculum coordinator will provide feedback to the Graduate Committee and the student’s Advisory Committee about a TA’s performance. The core coordinator’s assessment will be based on data obtained from undergraduate students, from other TAs, and from professors, and may include direct classroom observations, end-of-course student evaluations, the graduate student’s behavior during lab prep meetings, and other sources.

As a reminder, the current award letters read:

New student: “The University reserves the right to withdraw this award for unsatisfactory academic work, or for unsatisfactory performance of your assigned duties.”

Continuing Aid: “Support will be discontinued if you leave, graduate, or fail to meet academic or work standards.”

9. Responsible Conduct of Research Requirements

The National Institutes of Health and National Science Foundation have established formal requirements for Responsible Conduct of Research (RCR) training and certification. Graduate students who are not certified or in the process of completing it cannot be supported as Research Assistants (RAs) and cannot work on any project supported with federal funds. To comply with these requirements, all incoming M.S. and Ph.D. graduate students in biology, chemistry, physics, and selected other departments must take a 700 level RCR course in the Fall Semester. Ph.D. students are required to take an additional course in the spring semester. More details will be provided during departmental Orientation, as the requirements for certification change often.

Masters’ students who are coming back for the Ph.D. are NOT exempt from RCR certification, but must enroll in the appropriate courses.

10. Safety Training

The WFU Office of Environmental Health and Safety conducts annual safety training each August at the start of the fall semester. This is a required meeting for ALL graduate students (RAs, TAs, GAs, and scholars/fellows) and post-docs. Further details will be provided during Orientation.

11. Funding Opportunities

The Biology Department allocates funds for research each academic year to the Graduate Advisor for each graduate student. These funds are available for research costs (e.g., consumable laboratory supplies, chemical reagents, small equipment etc.). Consult with your Graduate Advisor about these funds. These funds are not for travel. Note that any equipment purchased using these funds is the property of the Department, not the property of the student.

Other funding sources are available to biology graduate students. All awards are subject to taxes. Guidance is available online from the IRS: [https://www.irs.gov/taxtopics/tc421.html](https://www.irs.gov/taxtopics/tc421.html).

- The Elton C. Cocke Travel Fund is an endowed fund maintained by the Department to help defray student costs for traveling to regional, national, or international meetings to present a paper or poster. Funding requests go to the Director of the Graduate Program in Biology in the form of a letter (email is acceptable). The following information must be supplied with the request: 1) Date, location, and name of meetings; 2) Title of poster or paper student will present; 3) Budget. The Budget must include estimated travel costs, hotel costs, registration fees, and any other pertinent information. Awards are made as a lump sum (check made out to the student) from Wake Forest University. Please check with Cindy Davis before paying any out-
of-pocket expenses. Awards from this fund are subject to taxes. Most awards are partial, and students are advised to seek other sources of funding in addition to the Cocke Award (such as the Graduate School Alumni Travel Fund). Students may only receive one Cocke Award per fiscal year (the fiscal year runs from July 1 through June 30). Please note that endowment income varies from year-to-year, and that you should apply for funds as soon as you have submitted your abstract.

• The Vecellio Fund is a gift fund available for support of graduate student research, which may include a need for travel. Requests for funding are submitted to the Vecellio Fund Committee. Contact the Chair of the committee for details and schedule. Awards from this Fund are subject to taxes. Each year the Department is able to award a total of approximately $10,000 from this gift fund. Awards are made once a year, and a student may receive only one award per fiscal year.

• The Grady Britt Fund is maintained by the Department to assist students in the area of parasitology (symbiosis). Funds may be used for a student’s research project, for travel associated with a student’s project, or for travel to scientific meetings. Students in parasitology or a related discipline must submit a request to the Department Chair (email is fine). Awards from this fund are subject to taxes.

12. Biology Graduate Student Information Form

One or more times annually the Graduate Program director will request all graduate students submit an updated electronic Biology Graduate Student Information Form. Please fill out this form in a timely manner. The information is crucial in assessing the Biology department’s training of graduate students. The information is also necessary to supply to the Graduate School and accreditation organizations. A link will be sent to all graduate students at the appropriate time.

12. Biology Graduate Student Annual Evaluation

To ensure that all graduate students are making consistent and timely progress toward their degrees, the Graduate Committee and Department Chair review yearly accomplishments, teaching, and advisory committee evaluations. Students update their information using the department’s online information system, and committee members submit anonymous assessments. It is essential that information is kept current to ensure accurate evaluation. It is our expectation that in the vast majority of cases, evaluation will show adequate progress. However, if there is a problem, this system allows for early intervention and correction. The information is also necessary to supply to the Graduate School and accreditation organizations. A link will be sent at the appropriate time.

C. Switching Advisors, Switching Degree Programs and Additional Support

1. Switching Advisors

A student may switch Advisors if unusual circumstances warrant such a change. If you have questions or concerns, consult the Graduate Program Director.
2. Switching Degree Programs

Infrequently, a current M.S. student in Biology may wish to switch to the Ph.D. program (without completing the M.S. degree). The request for change in degree program must be discussed with the student’s Advisory Committee and subsequently sent, in writing, to the Graduate Committee for review, evaluation, and possible approval. The following documents must be furnished to the Graduate Committee for consideration:

1. A letter from the student containing the formal request for the switch in degree programs, including justification for the change;
2. The student’s current CV;
3. A statement of research, teaching, and academic accomplishments that augments the original application to the Wake Forest Biology graduate program;
4. A letter of support, signed by the student’s advisor and thesis committee, addressing academic progress while at Wake Forest.

Such requests must be made by the January deadline for new student applications, because switching programs affects the awarding of TAs and scholarships. Requests to switch programs will be considered along with new applications. Requests submitted after the deadline will not be considered until the next year. If approved, the total number of semesters of departmental support the student is entitled to is the same as if the student originally entered the program as a PhD student (10 total semesters).

3. Additional Funding

It is expected that M.S. and Ph.D. students will complete their degrees during the time they are supported by the Graduate School (currently 4 semesters for the M.S. and 10 semesters for the Ph.D.) with or without additional support (RA) from their advisers. Infrequently, a student may be awarded additional TA support beyond the 4/10 semesters.

Requests for additional support are due by the priority application deadlines for the following semester (consult the Graduate School website for these deadlines). These requests will be considered along with new applications. Requests for additional support should include letters of support from the advisor and from the advisory committee. Requests should indicate why additional support is needed and include a clear timetable for finishing the degree. Requests made after the deadlines may not be considered.

D. M.S. Degree Program: Additional Requirements and Schedule

1. Course work

As a part of their degree program, M.S. students will complete a minimum of 24 hours of coursework. This includes a minimum of 12 hours at the 700 level, with the remainder at the 600 or 700 level. Choices of coursework should be made in consultation with the Graduate Advisor and the Advisory Committee.

2. Departmental Seminar

Each M.S. student will present at least one departmental seminar. This seminar normally covers the thesis research prior to the thesis defense and is given in the second Spring semester of residency.
Students must consult with the Chair of the Seminar Committee at the beginning of the semester to schedule their seminar.

3. M.S. Degree Candidacy
   M.S. Students may petition the graduate school for candidacy to the M.S. degree when course work is within one semester of completion, and the prospectus is approved by the Graduate Committee. Application to Candidacy forms may be obtained from the Graduate School’s web page link, Current Students.

4. Thesis Preparation and Final Examination
   M.S. students must write and successfully defend a thesis. Guidelines for preparation of these documents are available from the Graduate School. Prior to the oral examination and defense of the thesis, students must allow at least 5 working days for the review of the completed thesis by members of their Examination Committee. Examination Committee members must also be given sufficient time for review of preliminary drafts of a thesis.

5. M.S. Final Examination
   For the M.S., the thesis defense constitutes the final examination. The Examination Committee is appointed by the Dean of the Graduate School (see the Graduate Bulletin). In practice, however, the Advisory Committee is usually appointed to be the Examination Committee. For the M.S., one member of the Examination Committee is designated as the First Reader of the thesis and he/she, along with the Graduate Advisor, has editorial approval of the thesis. Most students elect to give all members of the committee opportunity to provide editorial input to the thesis.

   Master’s candidate must notify the Biology Department Faculty of their final examination date at least one week prior to the exam. Notice must include the abstract of the thesis, and the time and location of the oral defense.

6. Scheduled Deadlines for M.S. Students

First year
Orientation week (mid to late August).
   Orientation program from the Graduate School
   Orientation program from the Department of Biology
   Meet with Director of the Graduate Program for advising and then register.
   Receive instruction in animal care and use and in occupational safety.
   Receive teacher training.

October 15. Choose Graduate Advisor.

December 1. Choose Advisory Committee. You must convene the Committee prior to registration for the Spring semester. In this meeting, you should establish your course plan and discuss your research project. Please complete the Advisory Committee meeting form at the end of this document and submit it to the Director of the Graduate Program.
December 1. Priority application deadline for the Graduate School: Deadline for requests to change degree program from M.S. to Ph.D.

December 4. Graduate Program Director submits Continuing Aid Form to the Graduate School to establish support for the following academic year. While you do not need to do anything, consult with your Graduate Advisor if there are any changes in support.

~January 12. Receive Continuing Aid Letter from the Graduate School. Notify Graduate Director if there are any problems or issues with support for the following academic year or if you do not receive a letter.

March 1. Present Research Prospectus to Advisory Committee.

March 15. Meet with Advisory Committee to review Prospectus. As soon as the Prospectus is approved, submit a copy of the Prospectus to the Director of the Graduate Program.

Second year

October 1. Meet with Advisory Committee to review progress. Complete and submit the Advisory Committee meeting form. Schedule departmental seminar for the Spring semester with the Chair of the Seminar Committee.

December 1. Priority application deadline for the Graduate School: Deadline for requests to change degree program from M.S. to Ph.D. Deadline for requests for additional support beyond the standard four semesters.

February 1. Meet with Advisory Committee to review progress. Complete and submit the Advisory Committee meeting form.

February 15. File statement of intent to graduate (Degree Candidacy) with the Dean of the Graduate School.

April 10. Last day to submit chapter of thesis to Graduate School for format review.

April 15. Schedule oral examination.

May 1. Take oral examination.

May 15. Final copies of thesis due at Graduate School.

M.S. students continuing beyond a second year must convene their Advisory Committee at least every semester. After each meeting, submit Advisory Committee meeting form to the Director of the Graduate Program.

If you cannot meet a deadline, please seek advice immediately from the Director of the Graduate Program.
E. Ph.D. Degree Program: Additional Requirements and Schedule

1. Coursework
   There is no minimum requirement for coursework for Ph.D. students. Any necessary coursework is determined in consultation with the Advisory Committee.

2. Seminars
   Each Ph.D. student must give at least two seminars during their tenure. However, Ph.D. students may substitute an oral presentation at a scientific meeting for one of the departmental seminars; the student’s Advisory Committee will approve a suitable forum for any such presentation.

3. Teaching Requirement for the Ph.D.
   Ph.D. students are required to have two semesters of teaching experience as part of their degree, generally as a teaching assistant in one of the core laboratories in the WFU Department of Biology. To fulfill the Ph.D. teaching requirement, students must be enrolled as Ph.D. students. Teaching as a WFU Biology Masters degree student does not satisfy the teaching requirement for the Ph.D.
   The standard work load for a TA should average 15-20 hours per week during the academic semester. This translates to teaching 2 sections (~16 students each) of core laboratory courses each semester.

4. Ph.D. Preliminary Exam and Advancement to Candidacy
   Advancement to candidacy for the Ph.D. degree is contingent upon passing the Ph.D. Preliminary Examination that is administered and graded by the Examination Committee. The preliminary examination is normally given near the end of the student’s second year of graduate study. Students who are unable to take their preliminary examination at this time should notify the Graduate Program Director and indicate the reasons for the delay. Regardless of when the examination is administered, it must be passed at least twelve months prior to the date of the awarding of the degree.
   The Preliminary Exam consists of both written and oral parts. It should NOT directly consider the research program of the student; discussion of research progress should take place in the regularly scheduled meetings of the Advisory Committee. Instead, both the student and the Examination Committee should use this opportunity to evaluate the student’s training as a Biologist in the broadest sense.

   a. Written Portion:
      Decisions about subject matter to be encompassed by the written examination should be made at least 3 months before the exam in conferences between the student and the members of the Examination Committee. Each examiner’s questions should be designed to require a maximum of 4 hours of examination time to complete. Students normally take the written exams at the rate of one examiner’s questions per day during a single week. Each answer will be evaluated (graded) by two members of the Examination Committee; if both approve then the student passes. If there is a split vote, then the answer will be sent to all committee members and a majority will rule. The Advisory Committee will then decide, in conference by majority rule, whether the student passes or fails the exam overall.
b. Oral Portion:
Students cannot schedule the oral portion of their examination until they have passed the written portion. Except in extraordinary circumstances, the oral portion of the examination will take place within 30 days of completing and passing the written portion. This part of the exam is open to participation by any faculty member or other scientist invited by the Examination Committee. It will emphasize the same areas as the written portion of the exam, but the student can be expected to respond to questions concerning any aspect of biology. The decision as to whether or not a student has successfully passed the oral examination will be by majority vote of the members of the Examination Committee.

If a graduate student fails their written or oral exam, the Committee can recommend that the candidate be dismissed from the Department’s graduate program or that he/she be allowed to try again. Re-examinations must be scheduled no earlier than six months after the date of the first examination. A student may be re-examined only once.

5. Dissertation Preparation and Final Examination
Students must write a dissertation and defend it successfully during an oral examination. Guidelines for preparation of this document are available from the Graduate School. Students must submit their final thesis to their Examination Committee at least 5 working days in advance of the oral examination. Examination Committee members must also be given sufficient time for review of any preliminary drafts of the dissertation. Two Examination Committee members will serve as first and second dissertation readers. The Graduate Advisor and first and second readers will have final editorial approval of the dissertation. Most students elect to give all members of the committee opportunity to provide editorial input for the dissertation.

6. Final Examination
The final examination of the Ph.D. candidate includes both a defense of their dissertation and a broader examination of the candidate’s area of concentration. The Examination Committee is appointed by the Dean of the Graduate School. In practice, however, the members of the Advisory Committee are usually appointed to the Examination committee. The Examination Committee determines whether the student passes. For details, see the “Requirements for the Doctor of Philosophy” in the Graduate School Bulletin.

Examination Committee:
- Chair of the major department of a faculty member chosen by the Chair
- Major Advisor
- Another member of the major department*
- Representative from a related field within or outside the department*
- WFU faculty from outside the major department**
* usually a member of the student’s Advisory Committee
** Must be a member of the WFU Graduate Faculty, represents the Graduate Council and is Chair of the Examination committee

At least two weeks prior to the examination, Ph.D. candidates must have 50 copies of a brochure describing their doctoral program and research topic printed for submission to the Dean of the Graduate School for distribution. This brochure officially announces the scheduling of the doctoral
dissertation defense and includes educational and biographical information about the candidate as well as an abstract of the dissertation.

7. Scheduled Deadlines for Ph.D. Students

First Year
Orientation week (mid to late August).
- Orientation program from the Graduate School
- Orientation program from the Department of Biology
- Meet with Director of the Graduate Program for advising and then register.
- Receive instruction in animal care and use and in occupational safety.
- Receive teacher training.

October 15. Select Graduate Advisor.

November 15. Convene Advisory Committee. In this meeting, you should establish your course plan, and discuss your research project. Complete an Advisory Committee Meeting form (found in this document), and submit it to the Director of the Graduate Program.

December 1. Priority application deadline for the Graduate School: Deadline for requests to change degree program from Ph.D. to M.S.

December 4. Graduate Program Director submits Continuing Aid Form to the Graduate School to establish support for the following academic year. While you do not need to do anything, consult with your Graduate Advisor if there are any changes in support.

~January 12. Receive Continuing Aid Letter from the Graduate School. Notify Graduate Director if there are any problems or issues with support for the following academic year or if you do not receive a letter from the Graduate School.

March 1. Present Research Prospectus to Advisory Committee.

March 15. Meet with Advisory Committee to review prospectus. As soon as the prospectus is approved, submit a final copy of the prospectus to the Director of the Graduate Program.

End of the Spring Semester. Schedule first departmental seminar for Fall semester in second year. Consult the Chair of the Seminar Committee

Second year
First semester. Present Departmental seminar in Fall semester.

December 1. Priority application deadline for the Graduate School: Deadline for requests to change degree program from Ph.D. to M.S.

December 4. Graduate Program Director submits Continuing Aid Form to the Graduate School to establish support for the following academic year. While you do not need to do anything, consult with your Graduate Advisor if there are any changes in support.

~January 12. Receive Continuing Aid Letter from the Graduate School. Notify Graduate Director if there are any problems or issues with support for the following academic year or if you do not receive a letter from the Graduate School.
establish support for the following academic year. While you do not need to do anything, consult with your Graduate Advisor if there are any changes in support.

**January 12.** Receive Continuing Aid Letter from the Graduate School. Notify Graduate Director if there are any problems or issues with support for the following academic year.

**Both semesters.** Convene Advisory Committee each semester to review progress. Submit an Advisory Committee meeting form to the Director of the Graduate Program.

**Toward end of second year.** Take Preliminary Exam.

**Subsequent years**

**December 1.** Priority application deadline for the Graduate School: Deadline for requests to change degree program from Ph.D. to M.S.

**December 4.** Graduate Program Director submits Continuing Aid Form to the Graduate School to establish support for the following academic year. While you do not need to do anything, consult with your Graduate Advisor if there are any changes in support.

**January 12.** Receive Continuing Aid Letter from the Graduate School. Notify Graduate Director if there are any problems or issues with support for the following academic year.

**Both semesters.** Convene Advisory Committee each semester to review progress. Submit an Advisory Committee meeting form to the Director of the Graduate Program.

**Final Year**

As before, but in addition:

**Both semesters.** Convene Advisory Committee each semester to review progress. Submit an Advisory Committee meeting form to the Director of the Graduate Program.

**December 1.** Priority application deadline for the Graduate School: Deadline for requests to change degree program from Ph.D. to M.S. Deadline for requests for additional support.

**Usually second semester:** Present second Departmental seminar.

**February 15.** File statement of intent to graduate (Degree Candidacy) with the Dean of the Graduate School.

**April 10.** Last day to submit chapter of these to Graduate School for format review

**April 15** Schedule oral Final Examination of dissertation.

**May 1.** Complete oral Final Examination of dissertation.
**Early May.** Final copies of dissertation are due to Graduate School.

If you cannot meet one of these deadlines please seek advice from the Director of the Graduate Program immediately.
Advisory Committee Meeting Form

Date:_____________
Student’s name ____________________  Program: M.S. ___ Ph.D. ____

Subject area of thesis/dissertation research:

________________________________________________________________________

Meeting summary including plan for completion of remaining degree requirements. The student and all Committee members are encouraged to contribute to this summary (continue on additional sheets if necessary):

Endorsements of summary by Advisory Committee members:

Graduate Student _________________ Graduate Advisor _______________________

Committee member _______________ Committee member ______________________

Committee member _______________ Committee member ______________________

Committee member _______________ Committee member ______________________

Received by Director of the Graduate Program _____________________________