

**RULES, REGULATIONS, AND POLICIES FOR  
THE BIOLOGY GRADUATE PROGRAM**

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## TABLE OF CONTENTS

I.	Graduate Program and Training Groups.....	3
II.	An Overview of the Requirements.....	4
III.	Admission.....	5
A.	Ph.D.....	5
B.	Thesis Masters (MSA).....	6
C.	Non-thesis M.S (MSB).....	6
III.	Progress Toward the Degree.....	7
IV.	Foreign Language.....	9
V.	Priority List for Teaching Assistantships.....	10
VI.	Termination Procedures.....	11
VII.	Seminars.....	13
VIII.	Checklists.....	14
A.	Ph.D.....	14
B.	Thesis M.S.....	15
C.	Non-thesis M.S.....	16
IX.	UK Graduate Bulletin.....	16

## **RULES AND REGULATIONS OF THE BIOLOGY GRADUATE PROGRAM**

This document presents specific rules and regulations of the Biology Graduate Program, supplementing the more general requirements detailed in the UK Graduate Bulletin. It is essential that each student be familiar with the information contained in each. The last 2 major sections of this booklet summarize and emphasize some of the most important material to be found in the Bulletin.

### **I. Graduate program and training groups (Adopted 12/19/2014)**

The Graduate Program in Biology follows the requirements of the Graduate School and adds some specific requirements as described in subsequent sections. The committee has the primary responsibility for guiding students through their training and determines, after discussion with the student, the activities involved in their training.

Within Biology there can be additional training guidelines followed by **Training Groups**. Training groups are self-organized groups of faculty that may form to assist in recruitment and training in a variety of ways to the benefit of graduate students in the Department. The specific program cannot omit requirements of the Graduate School or Biology but can recommend additional activities related to training. Graduate students are free to choose a training group in consultation with their faculty mentor but can chart their own academic path with approval of their mentor and committee.

To foster department-wide understanding and increased communication about training programs, training groups must be officially recognized by the Biology Graduate Faculty. Such recognition occurs with a majority vote on a proposal for a specific training group after there has been sufficient discussion and feedback of the details of the proposed program. Recognition brings integration into the Graduate Program with respect to administration of the program, web pages, and other forms of advertising.

A training group seeking recognition should prepare a proposal to be distributed to the faculty at least 1 week before a meeting of the graduate faculty. The proposal should address:

1. A general statement of the added value of the training group to the training of students and to the graduate program in Biology along with any metrics for assessing that value,

2. Any special requirements for accepting students into the program,
3. Any plans, if any, for funding students in ways other than the standard methods in the department,
4. The training program, including:
  - a. How students will pick mentors,
  - b. Lab rotations if any and how they are managed,
  - c. Curriculum requirements or recommendations,
  - d. Add-on activities (seminars, workshops, side projects, etc)
  - e. A description of the format for written and oral exams,
  - f. Specific expectations of post-qualifying students,
  - g. Any special requirements for exit exam and the nature of the dissertation
5. A list of Faculty participants and an indication of their commitment to the program (e.g., courses offered and involvement in other activities).

Training groups should renew their departmental recognition every 5 years.

### **I. An Overview of the Requirements**

The essential requirement for the Ph.D. degree is demonstration of the candidate's ability to formulate, carry out, and communicate research in the forefront of an area of biology. This involves execution of a research project under the direction of a member of the Biology Graduate Faculty and an Advisory Committee, completion of coursework deemed necessary by that committee, and completion and final defense of a dissertation on the research project. Great importance accrues to the selection by the student of a major professor early in the student's graduate training. In addition to the above general requirement, a few specific and uniform requirements for the Ph.D. degree include: successful completion of written and oral qualifying examinations, at least 6 semesters of biology seminar coursework, and public presentation of the dissertation research.

Similarly, the thesis-based M.S. (Plan A) degree (hereupon MSA) in Biology requires the satisfactory completion of a research project, supplemented by at least 24 credits of graduate coursework. Emphasis is placed on preparing the student for subsequent doctoral training, should he or she decide to continue graduate work. Up to 6 hours of BIO 795 research credit can be applied to the required class credit hour total for MSA only if this work is not directly related to the thesis project. Requests to use BIO

795 credit for graduation require petition to the Graduate School and must be accompanied by a verification statement issued by the thesis advisor.

Non-thesis (Plan B) Master's students in Biology (hereupon MSB) must fulfill the general requirements for the MSB degree as outlined by the Graduate School and current Biology department requirements of all graduate students. Students must take 30 hours with the same distributions as required by the graduate school (At least 20 h must be in regular courses (courses other than research or residency courses), and at least 15 h must be at the 600-700 level). At least 20 h must have a BIO prefix. Near the end of their coursework, students must pass an exit oral exam conducted by a 3-person committee, directed at ensuring they are sufficiently familiar with scholarship in their chosen area of specialty.

## **II. Admission (originally adopted November 18, 1983)**

### **A. Ph.D.**

All students admitted to the Ph.D. program are expected to be highly motivated individuals with good communication skills and well-defined career goals focused on biological research.

Students admitted directly to the Ph.D. program without completing a master's program must have:

- 1) An overall undergraduate grade-point average of 3.2 from an accredited institution and cumulative percentile scores on all three parts of the Graduate Record Examination totaling 200 or higher.

and/or

- 2) Evidence of favorable research potential from a minimum of 3 letters of recommendation. Of particular value are reports of completed research projects and/or descriptions of participation in ongoing projects.

Students transferring from the M.S. to the Ph.D. program in biology at U.K. must have:

- 1) A U.K. graduate grade-point average of 3.5 or higher after at least 2 semesters of coursework.

- 2) Evidence of favorable research potential from: letters of recommendation, reports of completed projects, and accomplishments at U.K.
- 3) A positive recommendation from the student's committee.

### **B. Thesis Masters (MSA)**

Minimum admission requirements for the MSA degree in Biology are the same as the University's M.S. admission requirements (see the UK Graduate Bulletin at:

<http://www.research.uky.edu/gs/bulletin/current/bulletin.shtml> ).

Application materials and admission decisions for MSA applicants follow the same process as for Ph.D. students.

### **C. Non-thesis Masters (MSB)** (Adopted 12/19/14)

Admission into the MSB program is a separate process from the Ph.D. and MSA programs. Students must have:

1. An undergraduate GPA of 3.0 or higher
2. GRE scores in which the aggregate of percentiles for the three components is 150 or above or MCAT scores above the 50%,
3. Two letters of reference that attest to their qualities as a student,
4. A personal statement that explains how a non-thesis Masters' from our department will fit into the applicant's subsequent career plans.

Accepted students enter into the Plan B program with the following stipulations:

- 1) Plan B students are accepted into the program with no offer of financial aid,
- 2) Plan B students may serve as Teaching Assistants in Biology courses if they are qualified but are given a lower priority than Plan A MS and Ph.D. students in good standing (see section V below).

**III. Good Standing and Progress Toward the Degree** (originally adopted April 27, 1984)

**BEFORE THE SEMESTER:** Highly qualified applicants may be admitted directly into the Ph.D., the MSA, or the MSB programs. Each student is

advised initially by a mentor assigned by the Director of Graduate Studies and, based on the student's research interests, any training group involved, and on available space and faculty needs.

All students not previously employed by UK are required to complete a criminal history background check. International students (or others) with proof of recent US criminal background checks do not need to repeat this procedure. Details on this process can be obtained in the Biology office.

International Students from countries where English is not the primary language must complete the International Teaching Assistant (ITA) screen if seeking support as a teaching assistant. The score received may impact the TA duties allowed and failure to achieve sufficient competency may jeopardize future TA awards. ESL classes in English Pronunciation or in the fundamentals of the English language (ENG 098) or other language support services may be recommended to address deficiencies.

**DURING THE SECOND SEMESTER OR BEFORE THE BEGINNING OF THE THIRD SEMESTER FOR LABORATORY ROTATION STUDENTS.**

For Ph.D. and MSA students: The student in consultation with their thesis supervisor nominates members of the faculty, who have expressed willingness to serve on the student's advisory committee, to the Graduate School, which then solicits approval from the Director of Graduate Studies before officially recognizing the committee. (See the UK Graduate Bulletin for details on the composition of the committee.) After the committee has been approved, the student prepares and submits a written research proposal (including at least the objectives and significance of the project, some literature review, and a summary of methods to be used) to the committee. For Ph.D. students, this writeup may propose a dissertation project, or it may focus on a relatively short-term research goal preliminary to dissertation work; for MSA students, this will amount to a proposed thesis project. The committee meets to consider the student's coursework and research proposal. If the student wishes at this point to change status from MSA to Ph.D. or vice versa, this should also be considered by the committee. A written summary of the committee's recommendations, along with a copy of the research proposal, are conveyed to the Director of Graduate Studies by the supervisor. The Director of Graduate Studies will respond promptly in writing to any request for change of status. The 4<sup>th</sup> or 5<sup>th</sup> semester student may petition by writing for additional time for preparation and committee

consideration of a research proposal; an acceptable explanation for the delay should document extenuating circumstances or detail advantages to the research project of later submission of the proposal.

When circumstances beyond the student's control prevent the carrying out of a thesis project, the student may petition the Director of Graduate Studies in Biology for assistance in requesting a change of status from Ph.D. or M.S. Plan A to M.S. Plan B.

For MSB students: By the beginning of his or her last semester, the student can choose the advisory committee from members of the graduate faculty in Biology who have agreed to serve. This committee will continue to advise the student and will administer the exit exam before the degree is awarded.

AT THE END OF THE SECOND SEMESTER OR BEFORE THE BEGINNING OF THE THIRD SEMESTER FOR LABORATORY ROTATION STUDENTS: Ph.D. and MSA students unable to obtain a supervisor and form an acceptable committee will be dropped from the program.

DURING THE SECOND SEMESTER: MSA students are required to meet with their Advisory Committee. Meetings of approximately annual or greater frequency are required thereafter. To maintain good standing in the program, each student must meet with his/her Special Committee at least once within each 15-month period of tenure in the program.

DURING THE THIRD SEMESTER: Ph.D. students are required to meet with their Advisory Committees. Meetings of annual or greater frequency are required thereafter. After each meeting a copy of the meeting report is placed in the student's file and is available to the student and the advisory committee.

DURING THE FIFTH OR SIXTH SEMESTER: Ph.D. students must take the qualifying examination or, with the supervisor's approval, petition the Director of Graduate Studies in writing for a delay. If the examination is failed, the student, with advice from the graduate committee, may request a retake in the next semester or a change of status to MSA or MSB (to be completed at or before the end of the sixth semester).



WITHIN 1 MONTH AFTER THE BEGINNING OF SPRING SEMESTER EVERY YEAR: Each student, in consultation with his/her supervisor (if chosen), submits to the Director of Graduate Studies a progress report of research and coursework conducted over the past year. This report should contain a description of any research completed, lists of publications and meeting presentations and, for Ph.D. or MSA students, predictions of anticipated semesters required to take the qualifying examination (Ph.D.) and complete the dissertation or thesis. The format for this report is provided by the Office of Graduate Studies. Ph.D. students in the fourth semester or later who are making negligible progress, and are unable to provide a credible completion chronology, will lose financial support or be counseled to pursue and obtain an MSB within a reasonable time period or. MSA students will similarly lose their support or be advised to seek an MSB degree for negligible progress or indications that research cannot be completed by the end of the sixth semester. Failure to provide this yearly update within the specified time (and without justified explanation) will be interpreted as failing to meet the standards of adequate progress.

#### **IV. Foreign Language**

There is no foreign language requirement for the Biology graduate program. If the student's committee feels that language is an essential skill, they may require the student to demonstrate competence in an individual case, but this is extremely unusual.

For international students who are non-native English speakers, the Graduate Affairs Committee recommends that the Biology Graduate Program accept a TOEFL score of at least 550 on paper based test or 213 on CBT or 79 on Internet-based test (IBT) as fulfilling the foreign language requirement deemed necessary by a Biology student committee.

#### **V. Policy Guidelines for Awarding Teaching Assistantships** (originally adopted April 24, 1992)

Awards will be based on:

- A. Potential for sustained, productive association with a Department faculty member, as indicated by:
  1. information in the student's dossier,
  2. written comments or documentation provided by department faculty members, and

3. for returning students, acceptable past performance of TA duties (including any assigned instructional, lab preparative, grading or proctoring responsibilities)
- B. Student's credentials and standing, in the following order of priority:
1. Ph.D. students in good standing<sup>1</sup> during the first eleven<sup>2</sup> semesters following admission to the Biology Graduate Program (BGP). Students who switch from the MS program to the Ph.D. program in mid-course will be considered to have been in the latter program from the time of their initial entry to the BGP.
  2. MSA students in good standing<sup>1</sup> during the first 4 semesters following admission to the BGP.
  3. Incoming Ph.D. students.
  4. Ph.D. students in good standing<sup>1</sup> during their 12th and 13th<sup>3</sup> semesters following admission to the BGP.
  5. MSA students in good standing<sup>1</sup> during their fifth semester following admission to the BGP.
  6. Incoming MSA students in an order strongly influenced by potential for entry into the Ph.D. program.
  7. MSA students in good standing<sup>1</sup> nearing the completion of the thesis during the sixth semester following admission to the BGP.
  8. MSB students in good standing and having appropriate expertise for the available position,
  9. All other Ph.D. students including but not limited to students in good standing whose dissertation research director is not a Biology Department faculty member.
  10. All other MS students including but not limited to students in good standing whose thesis director is not a Biology Department faculty member.
- C. If qualified graduate students supervised by Biology faculty members are unavailable to fill all of the available teaching assistantships, then the following order of priorities applies to those additional positions:
1. Individuals with special expertise required to meet a highly specialized teaching need.
  2. Post-doctoral personnel with appropriate expertise for teaching and for productive research association with a Department faculty member.

3. Undergraduates in the Biology Honors Program conducting research supervised by a Biology Department faculty member.
  4. Other individuals (e.g. other undergraduates and graduate students), based on potential ability as an effective teaching assistant.
- D. Exceptions to these guidelines may be granted by the Chair of the Department of Biology in special circumstances.

<sup>1</sup>Good standing in this context means adherence to the written requirements of the Biology graduate program.

<sup>2</sup>For students considered having 1 year of Ph.D. training on the basis of having previously earned a Master's degree in Biology at the University of Kentucky, this is 9 semesters rather than 11. A student may petition the Department of Biology Committee on Graduate Affairs prior to taking the qualifying examination to waive this rule, if he/she feels that the prior Master's experience was not suitable training towards fulfillment of Ph.D. requirements.

<sup>3</sup>For students satisfying a year residence requirement by applying hours from a previous Master's degree, this is 10 and 11 semesters rather than 12 and 13. The rule concerning waiver of Master's experience is as for the preceding footnote.

**VI. Termination Procedures for Biology Graduation Students** (These procedures are an extension of those already noted in III. Progress Toward the Degree. Originally adopted 1982)

The Director of Graduate Studies may recommend to the Graduate School to terminate a graduate student for the following reasons:

- A. Academic probation (GPA below 3.0) for 2 consecutive semesters.
- B. Failure to pass either the Masters Final Examination or the Ph.D. Qualifying Examination after a second attempt.
- C. In response to a recommendation for termination from the student's Advisory Committee, as indicated below.

It is by mutual agreement with the major professor (advisor) that a

Graduate student conducts his or her research in a particular laboratory. If during the course of a graduate student's program the student decides to leave the major professor's laboratory or is informed by the major professor that he or she must leave, the student's Advisory Committee will meet within 3 weeks, or as soon as possible thereafter, to review the situation. If appropriate, the Advisory Committee and the Director of Graduate Studies will try to arrange for the student to be accepted into the laboratory of another member of the Biology Program. If this alternative is not achieved, the Advisory Committee may recommend to the Director of Graduate Studies that the student be terminated from the Graduate Program.

The Advisory Committee may recommend termination after the student has failed to pass 1 Qualifying Examination or the Final Examination (M.S.) or after the Qualifying Examination has been passed but no progress is being made. The recommendation of the Advisory Committee must be in writing to the Director of Graduate Studies with a copy provided to the student. The letter should clearly document the reasons for the recommendation. In the event of a recommendation for termination from the Advisory Committee, the following procedure will be followed.

a. The Director of Graduate Studies will appoint an ad hoc committee of at least 3 full members of the Graduate Faculty in Biology who are not on the student's Advisory Committee. The report and recommendation of the ad hoc committee, along with the formal recommendation of the student's Advisory Committee, will be presented to the Graduate Faculty.

b. The Graduate Faculty will meet within 3 weeks, or as soon as possible thereafter, to discuss the report and recommendation of the ad hoc committee. The Graduate Faculty will vote to approve or disapprove the termination recommendation of the student's Advisory Committee. A 2/3 vote of the Graduate Faculty will be required for approval of a recommendation for termination.

c. If the Graduate Faculty approves the recommendation for termination and the student dissents, the student will have an opportunity to meet with the Graduate Faculty. Following this meeting and discussion, a second vote on the recommendation for termination will be held (a 2/3 majority vote will be required for approval of the recommendation).

d. After considering the recommendation of the student's Advisory Committee, the report and recommendation of the ad hoc committee, the discussion and vote of the Graduate Faculty, the Director of Graduate

Studies will either retain the student or recommend termination to the Graduate School. The Director will provide the student, the student's Advisor and the Dean of the Graduate School with written notice of the decision.

## **VII. Seminars (originally adopted January 1, 1979)**

1. Graduate students will be expected to formally enroll and complete the following number of hours of graduate seminar (BIO 770 series):

- a. MSB students– 1 hour
- b. MSA students – 3 hours
- c. Ph.D. students –6 hours, 2 of which shall be taken following satisfactory completion of the qualifying examination.
- d. All first-semester MSA and Ph.D. Biology graduate students must enroll in the Biology Graduate Student Orientation to fulfill one of the BIO 770 requirements.

2. Ph.D. students in their 4<sup>th</sup> year are required to present their thesis research in an approximately 30 min public talk scheduled and advertised to enable students and faculty across the whole department to attend. The format for these talks will be determined by the Graduate Affairs Committee at the start of each year. (Adopted 11/7/2014).

3. Graduating students (Ph.D.) are required to present an exit seminar to the Department prior to the dissertation defense. Graduating Master's students are encouraged to present a seminar on their research.

4. Seminars presented in other programs (e.g., Microbiology, Plant Physiology, etc.) may be used to satisfy the requirements as outlined in paragraph #1 (above), provided the student is formally enrolled in the seminar course and this meets approval of the Advisory Committee.

5. All graduate students in the Biology Graduate Program are required to attend all regular weekly Department seminars during every semester he/she is enrolled as a graduate student at UK. Exceptions include students whose class meetings, instructional obligations, or approved professional travel conflict.

## VIII. Checklists

NOTE: Theses and dissertations must be formatted and organized as described by the Graduate School at [www.research.uky.edu/gs/thesdissprep.shtml](http://www.research.uky.edu/gs/thesdissprep.shtml). The Graduate School now offers students the option of submitting their master's thesis and doctoral dissertation) in electronic format (an **E**lectronic **T**hesis or **D**issertation). For more information and to view the current collection of ETD's, go to [www.uky.edu/ETD/](http://www.uky.edu/ETD/).

### A. Ph.D.

- STEP 1. Advisory Committee Appointed (within the first year by letter from the Major Professor to the Director of Graduate Studies)
- STEP 2. Language Requirements (Completion within the first 2 years; Qualifying Examination cannot be taken until this is done)
- STEP 3. 2 years of Residence must be completed prior to taking the Qualifying Exam. 1 year credit can be given for an M.S. Degree. A letter requesting this credit is sent from the Major Professor to the Director of Graduate Studies.
- STEP 4. Qualifying Examination (usually taken during the second year). 2 weeks notice must be given to the Graduate School prior to the Examination.
- STEP 5. Graduate School must be notifying in writing of the results within 2 weeks following the Examination.
- STEP 6. With the successful completion of 1-5 above, the student is admitted to CANDIDACY by the Graduate School.
- STEP 7. 2 consecutive full-time semesters of enrollment including 6-9 hours each semester in BIO 769 must be completed following the completion of the Qualifying Examination. For students who entered the Graduate Program in the Fall of 2005 (or later), BIO 769 is not taken for residency. Rather, students register for 2 hours BIO 767 (Dissertation Residency Credit) each semester after the qualifying exam until graduation.
- STEP 8. Application for Graduation: The students must submit to the Graduate School Office a degree card within 30 days of beginning of the semester of expected graduation. (15 days notice is required during Summer School Sessions)

- STEP 9. Notification to Graduate School of Notification of Intent to Schedule Final Examination (at least 8 weeks prior to the examination time)
- STEP 10. Dissertation Approval Sheet and a dissertation for inspection to the Graduate School. Must be at the Graduate School 2 weeks prior to the Final Examination.
- STEP 11. Concurrent with Step 10. The Request for Final Examination form must be delivered to the Graduate School.
- STEP 12. Pay the dissertation fee (approximately \$74.00; the optional copyrighting fee is \$65.00) at the Student Billing Services Office (18 Funkhouser building).
- STEP 13. Final “corrected” copy of the dissertation must be turned in to the Graduate School no later than 60 days after the Final Examination.

**B. MSA**

- STEP 1. Request for transfer courses (if applicable); to be done by a letter from advisor to the Director of Graduate Studies.
- STEP 2. The Committee is recommended to the Director of Graduate Studies by the advisor following consultation with the Graduate Student. The Committee must be composed of at least 3 appropriate members (The Chairman must be a member of the Graduate Faculty).
- STEP 3. Correct number of hours:  
24 hours with thesis/30 hours without thesis. Half minimum number of 600-700 level courses, 2/3 minimum requirements in regular courses (i.e., any except research or residence courses), and 2/3 minimum credits in Biology courses. A maximum of 6 hours of BIO 795 is allowed for a MSA degree and this research cannot contribute to the thesis.
- STEP 4. Apply for graduation (within 30 days after beginning of semester of expected graduation; 15 days in Summer School); student must do so in person at the Graduate School Office.
- STEP 5. Pay thesis binding fee at Billings and Collections Office.

STEP 6. Masters examination notification must be in the Graduate School at least 2 weeks prior to the scheduled date of the examination. This must be in a letter form to the Graduate School and must name the date, time and place of the examination, and the committee members.

STEP 7. Corrected copy of the thesis must be turned in to the Graduate School with 60 days following the Masters exam.

**C. MSB**

STEP 1. Request for transfer courses (if applicable); to be done by a letter from advisor to the Director of Graduate Studies.

STEP 2. The Committee is recommended to the Director of Graduate Studies following consultation with the Graduate Student. The Committee must be composed of at least 3 faculty members.

STEP 3. Correct number of hours to be confirmed by Graduate Office: 30 hours. Half minimum number of 600-700 level courses, 2/3 minimum requirements in regular courses (i.e., any except research or residence courses), and 2/3 minimum credits in Biology courses. A maximum of 6 hours of BIO 795 is allowed.

STEP 4. Apply for graduation (within 30 days after beginning of semester of expected graduation; 15 days in Summer School); student must do so in person at the Graduate School Office.

STEP 5. Masters examination notification must be in the Graduate School at least 2 weeks prior to the scheduled date of the examination. This must be in a letter form to the Graduate School and must name the date, time and place of the examination, and the committee members.

**IX. Graduate School Bulletin**

The Bulletin is now available only in electronic format. See: <http://www.gradschool.uky.edu/CurrentStudents/current.html>. This



document contains the official University policies and procedures concerning admission and advancement in graduate school. Every student should become familiar with its contents.