

Miami University

Department of Biology Guide to Graduate Studies

For students in Biology Department affiliated graduate programs

(Biology, Botany, CMSB, Ecology, EEEB)

Revised August 2023

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For Graduate Students in the Biology and Botany Graduate Programs

Revised August 2019

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A. Requirements for Admission to Graduate Programs

General admission requirements

To be admitted to the graduate degree programs in the Biology department, students must meet the minimum standards of the Graduate School (Graduate School Handbook, section 1.1; http://www.miamioh.edu/documents/graduate-studies/Graduate_Student_Handbook.pdf). In addition to his/her formal application to the Graduate School, an applicant must have three letters of recommendation, the results of the general aptitude portion of the Graduate Record Exam (GRE) and a personal letter outlining the student's professional goals and area of research interest. At least one research advisor must be identified and be willing to accept the applicant prior to acceptance into the program. The Test of English as a Foreign Language (TOEFL) is required of all foreign applicants from non-English speaking countries.

Minimum background preparation

Degree applicants should have a broad course background in the biological sciences, chemistry, physics, and mathematics or statistics. Deficiencies are to be made up by a method determined by the student's graduate committee. This may take the form of additional undergraduate course work or directed readings.

Admission to the Ph.D. program

To be admitted to the Ph.D. program, students must have completed a research-based Master's degree with a written thesis or successfully applied to bypass the Master's degree.

Master's bypass

At student may apply to bypass the Master's degree and be admitted to the Ph.D. program. To bypass, students must complete three semesters (27-30 hours) of graduate work with at least a 3.0 grade point average. The student will provide their committee with a personal statement justifying their request and detailing evidence of their potential to complete a Ph.D. degree. If the student's committee approves the request, the application is then forwarded for review by the departmental Graduate Advisory Committee (GAC). If the GAC approves the request, it is brought to the graduate faculty for approval. Students should submit applications before the end of their third academic semester to formally be admitted to the Ph.D. program in their fourth semester. (See form BP in Appendix C.)

B. Graduate Student Support

Time limits for financial support

Students in good standing are eligible for financial support for the following time limits:

- a) M.S. – 2 years
- b) Ph.D., student enters program with M.S. – 4 years
- c) Ph.D., student enters program without M.S. – 6 years

Dissertation Scholarships

Ph.D. students may apply for a dissertation scholarship for their final year of study. This scholarship is awarded by the Graduate School and allows students to focus completion and writing of their dissertation. Applications are due by March 15th of the spring semester. Students will submit to the GAC a current C.V., a letter of endorsement from the major advisor plus two additional endorsements, a copy of their dissertation proposal, reprints of published papers or copies of submitted manuscripts, verification of

completion of the comprehensive exams and proposal defense signed by the student's committee, and any other materials pertinent to the application. See the "Criteria for Dissertation Scholarships" in Appendix C for application guidelines.

C. Choice of Permanent Advisor and Formation of the Advisory Committee

Selection of the advisor

As early as possible, but no later than the beginning of the second semester of residency, students are expected to select a major advisor (or co-advisors) and confirm that the major professor is prepared to direct their research program. The major advisor is expected to serve for the entire course of the student's program. Until a major professor is selected, the Departmental Chair or the Chair's designate will serve as the student's advisor.

Rotation policy

For students opting to rotate, a temporary advisor may be identified along with up to two additional potential advisors, each of whom would be willing to accept the student into their lab. In this case, the student may participate in a mutually agreed upon rotation system among the potential advisors for a period no longer than the first semester in residence (e.g. ~6 weeks per lab for two rotations). At the end of the rotation period, an advisor or co-advisors should be identified by mutual agreement within the rotation group to serve the remaining course of the student's program.

Graduate Committees

Master's and Doctoral advisory committees will be formed in consultation with the student and his/her research advisor, subject to approval by the Chair of the GAC, by the end of the 1st semester in residence (or 2nd semester for rotation students). The graduate committee is expected to meet at least once per year to approve a course of study, to provide guidance on the development of the thesis/dissertation research proposal, to discuss academic and research progress, and to administer the comprehensive examination and final defense. A record of the dates and agenda topic for each meeting should be maintained in the student's departmental personnel file (form G-1, Appendix B).

The Master's advisory committee is comprised of at least three Miami University faculty members (at least two from the Biology department) of appropriate graduate level and is chaired by the major advisor.

The Doctoral advisory committee is comprised at least five Miami University faculty members of appropriate graduate level and is chaired by the major advisor. At least two of these faculty are from the Biology department and one individual from a different department serves as the Graduate School Representative on the committee.

The research advisor and the Graduate School Representative must hold Level A Graduate Status. Adjunct faculty members with Level B Graduate Faculty Standing can serve in any capacity except as advisor or the Graduate School Representative. Any individuals external to Miami University that do not hold Level B Graduate Status will be appointed to this committee in an *ex officio* capacity.

Doctoral advisory committee members must be approved by the Dean of the Graduate School at least 10 business days prior to administration of the comprehensive (GS Form D-1; Appendix B) and again 10 business days prior to the doctoral final examination (GS Form D-3; Appendix B).

D. Graduate Student and Advisor Obligations

Biology Department Diversity Statement

In the Department of Biology, fostering a welcoming environment for all members of our community is at the very core of our mission. We value diversity and are deeply committed to create a place where persons of all identities thrive to learn and discuss biology and beyond. We also recognize our responsibility to continue actively reject ideas and forces that disvalue diversity and inclusion, and to work our hardest to promote diversity in our program. As biologists, we know that diverse groups bring a wide variety of valuable perspectives, which is indispensable in teaching, learning, research, and science communication. We endeavor to actively engage in positive behaviors to achieve our goals and build confidence and competencies in our students, with our staff, and among our colleagues to contribute positively to society.

Student obligations

Pursuit of a graduate degree is considered a full-time endeavor. A student is not allowed to take on unapproved employment or other commitments, including other degree programs, or enroll in courses not approved by his/her major professor. Retention and renewal of graduate assistantships and continued enrollment in the Biology Department graduate programs are predicated on maintaining good standing status.

Definition of Good Standing

To maintain good standing, Graduate students must meet all requirements set forth in the Miami University Handbook for Graduate Students and Faculty, and in addition Biology Department graduate students must:

- a) have a major professor, a graduate committee, and an approved program of study;
- b) have a cumulative G.P.A. of 3.0 (see “Scholastic Regulations for Graduate students”, section 1.3.B of the Graduate handbook for consequences of failing to meet this requirement);
- c) perform satisfactorily in their research (as assessed by the primary advisor and/or the thesis/dissertation committee);
- d) perform satisfactorily in their teaching duties (as assessed by the Department Chair);
- e) successfully complete all coursework, qualifying exams and proposals on schedule, according to program requirements;
- f) and be professional and collegial members of the department including exhibiting professional behavior towards officemates, classmates, labmates, faculty and staff, and following the Code of Student Conduct in Miami University’s Student Handbook.

Review of Good Standing

Good standing status is reviewed by the Biology Graduate Advisory Committee (GAC) each year in January and the GAC makes recommendations to the Chair regarding possible violations of good standing. Student progress and standing in the Biology graduate program will be reviewed by the GAC. In addition, the primary advisor, members of the thesis/dissertation committee, or any faculty may bring any student up for review by the GAC at any time by providing a written statement outlining specific concerns. The student will receive a written statement from the GAC outlining these concerns and the student will be given an opportunity to provide a written response. The GAC will then review the concerns and, if the student is found to not meet one or more requirements for good standing, will

recommend a course of action to the Chair. Students who do not meet one or more of the requirements for good standing may be recommended a reasonable period of time to address deficiencies and reviewed again following that time period. However, in the case of egregious lack of duty, immediate termination may be recommended. The Chair will make the final decision as to course of action and inform the student in writing with reasons described. The chair's decision will recognize that the identification of a new faculty advisor or continuation of an existing advisor is by mutual agreement between the faculty member and the graduate student. Terminated students have the opportunity for a hearing with the Associate Provost and Dean of the Graduate School.

Advisor Obligations

Advisors must follow the statements of good teaching practice and professional conduct as described in the Graduate Handbook (Section 1.7.A). Advisors are expected to treat students with courtesy, respect and without prejudice at all times. Advisors are allowed to respectfully criticize the student's academic or research performance. Advisors should make research performance expectations clear to their advisees and review their performance on a regular basis. Advisors who feel students are not meeting expectations in light of these reviews, should communicate to their students that they are not meeting performance standards in writing. If the advisor wishes to terminate their sponsorship of the student, they will submit their specific concerns to the GAC in writing. The student will receive a written statement from the GAC outlining these concerns and the student will be given an opportunity to provide a written response. The GAC will evaluate the specific concerns of the advisor and the student's written response and recommend a course of action to the Chair. The Chair will make the final decision as to course of action and inform the student in writing with reasons described. The chair's decision will recognize that the identification of a new faculty advisor or continuation of an existing advisor is by mutual agreement between the faculty member and the graduate student.

Changing Advisors

Students should expect to be able to respectfully provide their advisor with criticism that is aimed at improving their learning experience and their advisor should have the opportunity to address such concerns. In the case that the student wishes to switch advisors during their program, s/he must submit their specific concerns to the GAC in writing. The advisor will receive a written statement from the GAC of the specific concerns and the advisor will be given an opportunity to provide a written response. The GAC will evaluate the specific concerns of the student and the advisor's written response and recommend a course of action to the Chair. The Chair will make the final decision as to course of action and inform the student in writing with reasons described. If the student is determined to be in good standing (see above), they may be given the opportunity to identify a new advisor that agrees to sponsor them before the start of the next full semester in order to continue receiving further financial support from the department. Note, students do not own the data they generated prior to changing advisors. Unless they receive approval in writing from their previous advisor, students are expected to change research projects when they choose a new advisor.

Reporting Suspected Harassment or Discrimination

It is the responsibility of every instructor to ensure that the learning environment is free from all forms of prejudice that negatively influence student learning, such as those based on age, ethnicity, gender, mental or physical impairment, race, religion, sexual orientation, or gender identity (see Statement of Good

Teaching practices of the Graduate Handbook). If the student believes they are a victim of harassment or discrimination (a Title IX violation) they may report this behavior directly to the Office of Equity and Equal Opportunity (OEEEO) who will investigate the accusation. Alternatively, they can report to the chair of the GAC or department Chair who must promptly inform the OEEEO. All alleged violations will be investigated by the OEEEO. See the University Title IX Protocol-Sexual Misconduct Policy and Procedures for Students at Miami University in the Student Handbook (Section 4.12).

Student Academic grievance policy

In the context of a course, if a student feels an instructor or faculty has violated the Statement of Good Teaching Practices (See Graduate Handbook section 1.7.A), they should first meet with the course instructor or faculty member to voice a complaint and to receive an explanation and possible redress. If the student is not satisfied with the explanation, he or she should confer with the Department Chair. At that point, the student may either ask for a grade review or charge the instructor with a violation of the Statement of Good Teaching Practices and utilize the department grievance procedure with the option to appeal any decision at the Divisional level. The full academic grievance procedure is outlined in the Graduate Handbook (See graduate Handbook section 1.7). Note, issues not covered in the Statement of Good Teaching Practices should be discussed with the GAC chair to determine a proper course of action.

E. Graduate Student Milestones

Plan of Study

Students will meet with their graduate committee before the end of their first semester to determine their plan of study (Form G-2, Appendix B). This plan of study outlines the expected courses the student will take and when they will take them to fulfill their program requirements. This plan must be approved by the entire committee; subsequent changes to this plan are possible, but subject to approval by the committee.

Thesis/Dissertation proposal defense

A proposal describing the objectives, methods, and expected outcomes of the thesis or dissertation research to be undertaken must be presented to the student's graduate committee at a meeting of the entire committee. The advisor, in consultation with the committee, will determine the format of the proposal (e.g. NSF, NIH, USDA, EPA, etc.) and its presentation. The body of the written research proposal will typically range between 10-15 single-spaced pages, not counting literature cited, for a Ph.D. proposal, and 5-10 pages for an M.S. proposal. The student will be informed of the committee's format decision prior to beginning the writing of the proposal. The proposal should be submitted to the committee at least 14 calendar days prior to the proposal defense meeting. Notification of the results of the proposal defense will be provided to the Department by completion and submission of the appropriate Departmental Form. If the proposal is evaluated as requiring revisions, the student will make revisions based on evaluation comments and submit the revisions within an additional 7 day period for approval by the graduate committee.

The thesis proposal should be presented to and approved by the end of the second semester in residence (Form G-3, Appendix B). The dissertation proposal should be presented and approved by the end of the 4th semester in residence (or 5th semester for Master's bypass students).

Time Limit: The student should reserve 2 hrs (MS) to 3 hrs (PhD) for the combined presentation and oral defense of their thesis or dissertation proposal.

Doctoral Comprehensive exam

Ph.D. students must pass a comprehensive examination administered by the student's doctoral advisory committee to be admitted formally to candidacy for the doctorate degree. Students should take the exam during their 5th semester in residence (or 6th semester for Master's bypass students). The comprehensive exam has a written and an oral component. Students must pass the written part prior to attempting the oral part and must complete the oral part within four (4) weeks of receiving notification that they have passed the written part.

Comprehensive exam formats

The format and coverage of the comprehensive exam will be determined by a majority of the student's Doctoral Advisory Committee. There are two standard formats available. Alternative formats may be possible, but they must be approved in advance by the GAC.

Format 1: Essay and topical coverage exam

Topics to be covered are discussed and approved by the student's Doctoral Advisory Committee. Students are encouraged to speak with individual committee members well in advance for advice or specific readings that will help prepare them for the exam; though what is provided to the student is at the discretion of the individual committee member. In preparation for the written exam, the chair of the Doctoral Advisory Committee will solicit written questions from all committee members and then compile a set of exams, formatted to be taken in 4 to 5 writing sessions, usually one session per participating committee member. The exam for each writing session should be designed such that it can be completed in 4 to 8 hours. Questions may be open- or closed-book, at the discretion of the individual committee member. The written portions of the exam must be completed by the student within a 10 day period. During the oral comprehensive, students may be asked questions related to the topics previously determined by their committee.

Format 2: Research proposal exam

In consultation with the research advisor, the student will choose three research topics of interest. The topic cannot be the same as the one explored for his/her Ph.D. dissertation. An abstract for all three topics will be submitted and approved by the Doctoral Advisory Committee. The Committee will choose one of the topics for the student to prepare a research proposal in the format of an appropriate Federal Agency (e.g., NIH, NSF, USDA, EPA). Not counting literature cited, the body of the written research proposal will have range of 10-15 single-spaced pages. Once the topic is chosen by the Committee, the student will write and submit the proposal to the Committee within a three week period. During the oral comprehensive, students may be asked questions related to the written proposal as well as topics previously determined by their committee.

Exam evaluation

Evaluation of the written exam should be done within 10 calendar days after completion of the writing sessions. Committee members will be responsible for evaluating and assigning a grade of Fail, Revisions Required, Pass, or Pass with Distinction for each of the questions they have each submitted (Format 1) or the proposal (Format 2). By the end of this 10 calendar day period, the chair of the Doctoral Advisory

Committee will compile the results of the evaluations and distribute them to the remainder of the Committee for discussion and to approve the result of the evaluations. If any written question(s) (format 1) or the proposal (format 2) is evaluated as a Revision Required, the student will be given 7 calendar days to make and submit revisions based on evaluation comments, after which a final grade of Fail, Pass, or Pass with Distinction will be assigned. Once a final grade of Pass or Pass with Distinction is assigned, the student will schedule the oral portion of the comprehensive exam to be completed within an additional four academic weeks.

The format of the oral comprehensive exam shall be determined by the Doctoral Advisory Committee in consultation with the student and will be moderated by the student's research advisor. The oral exam will be conducted in Executive Session (i.e., no public observers may participate) and should be completed in 2 to 3 hours. At the completion of the exam, the student will be excused from the room and the Committee will discuss and vote on an evaluation of the performance on the oral exam as a Fail, Pass, or Pass with Distinction.

Passage of the written and oral part of the examination each requires four affirmative votes and no more than one dissenting vote. Permission to repeat either the written or oral part of the exam is at the discretion of the student's Doctoral Advisory Committee. A third attempt at either part will not be permitted under any circumstances. Notification of the results of the comprehensive exam will be provided to the Department and the Graduate School by completion and submission of the appropriate Graduate School form (GS Form D-2; Appendix B).

Doctoral Departmental Seminar

Ph.D. students are strongly encouraged to present a departmental seminar during their last year (Fall or Spring semester) prior to their dissertation defense. Students should contact the faculty in charge of the seminar schedule two semesters before they present so that they may reserve a seminar slot for their presentation.

Thesis /Dissertation Preparation and Defense

Preparation of the Thesis or Dissertation

Students should write their thesis or dissertation in accordance with current Graduate School guidelines (Guide for Writing Theses and Dissertations; <http://miamioh.edu/documents/graduate-studies/forms/thesis-diss-guidelines.pdf>). It is often desirable to write the thesis or dissertation chapters in the format of a journal in which the work will be published. For the dissertation, it is also desirable to submit one or more manuscripts for publication before the dissertation is completed. The completed thesis or dissertation must be in the hands of the students Graduate Committee 14 calendar days before the date on which it is to be defended.

Public seminar

As part of their thesis/dissertation defense, students are required to present a public seminar, publicized at least 7 calendar days prior to the defense date. The thesis seminar should be approximately 25 to 30 min, and the dissertation seminar approximately 30 to 45 minutes, not including questions.

Thesis/Dissertation defense meeting and approval

The student should reserve 2 hours (for M.S.) or 3 hours (for Ph.D.) for the combined seminar presentation and formal oral defense of their thesis or dissertation. The student must successfully defend the thesis or dissertation to their Graduate committee in executive session following their public seminar.

Barring unforeseen circumstances, the entire committee must be present for the duration of the defense. Substitution of committee members is allowed if absolutely necessary and if approved, in advance, by the GAC.

For the thesis, passage requires a vote of approval by at least two of the three committee members, with no more than one dissenting vote. Notification of the results of the final examination will be provided to the Department and the Graduate School by completion and submission of the appropriate Graduate School form (GS Form M-1; Appendix B). The final thesis requires the signatures of the major professor and at least one reader (GS Form M-2, also the Thesis title page; Appendix B). This document must be submitted to the Graduate School at least 10 business days prior to commencement.

For the dissertation, passage requires a vote of approval by at least four committee members, and there can be no more than one dissenting vote. Notification of the results of the final defense will be provided to the Department and the Graduate School by completion and submission of the appropriate Graduate School form (GS Form D-4). The final dissertation requires the signatures of the major professor, graduate school representative and at least two readers (GS Form D-5, also the dissertation title page; Appendix B). This document must be submitted to the Graduate School at least 10 business days prior to commencement.

The student is required to provide a final PDF file as well as a final printed copy of the approved thesis or dissertation both to the faculty advisor and to the Department in addition to those copies required by the Graduate School.

F. Assessment of Student Progress and Program Assessment

Student Annual Reports

Students will maintain a record of their degree progress and accomplishments as they progress throughout their graduate career. At the end of each year and following the successful defense of their thesis/dissertation, students will fill out an updated progress report. Each student is required to discuss their report with their advisor prior to submission to the GAC. This sheet will be used to assess the student's progress toward success in each of the four learning objectives as detailed in the annual report form (see form in Appendix B).

Program Assessment

Students will provide their committee with copies of the student performance assessment rubrics at two milestones in their training: 1) Comprehensive examination (Ph.D. and Botany M.S. only) and 2) Thesis/Dissertation defense (Ph.D. and M.S.). Rubrics are available from the Program advisors and/or the department graduate administrator assistant, and should be brought to the Oral comprehensive or Thesis/Dissertation defenses (see Forms in Appendix F). Committee members are required to complete the rubrics which rank the student's level of achievement in the four learning objectives identified by the department. These forms are to be turned into the department graduate administrative assistant by the Committee Chair and will be shared with the Graduate Program Advisor. These rubrics are used to assess the degree to which the graduate programs are effectively training students by the degree to which students, overall, are meeting the program learning objectives, and have no impact on an individual student's degree requirements or pass/fail decisions by their committee.

G. Target Dates for Graduate Student Milestones

Normal progress toward the M.S. and Ph.D. degrees includes the steps in the following list. Target dates are included. Students are expected to meet these target dates in order to be awarded continued departmental support. Exceptions past these deadlines must be approved by the GAC.

Year	Semester	M.S. Proposed	Ph.D. (with M.S.)	Ph.D. (Bypass)
1	1	Advisor, Committee formed, Plan of Study approved	Advisor, Committee formed, Plan of Study approved	Advisor, Committee formed, Plan of Study approved
	2	Thesis proposal		
2	3	Oral Comp (Botany MS only)		Petition for Bypass
	4	Thesis defense	Dissertation Proposal	
3	5		Written and Oral Comps*	Dissertation Proposal
	6		**	Written and Oral Comps*
4	7		(Optional) Departmental Seminar (4 th year)	
	8		Dissertation Defense	
5	9			
	10			**
6	11			(Optional) Departmental Seminar (6 th year)
	12			Dissertation Defense

* A student's committee may approve switching the target semester deadlines for the Proposal Defense and the Comprehensive exam if they deem it more appropriate for that student's progress.

**Dissertation Scholarship applications due by March 15th to the GAC

H. Progress Checklists for M.S. and Ph.D. (with bypass)

M.S. Program Progress Checklist

Event [required forms listed after each event]	Target date
<input type="checkbox"/> Choose advisor and committee members. [Plan of Study Form (Departmental G-2)]	By end of first semester
<input type="checkbox"/> Obtain committee approval for a plan of study [Plan of Study Form (Departmental G-2)]	By end of first semester
<input type="checkbox"/> Defend Thesis proposal [Defense of Research Proposal Approval Form (Departmental G-3)]	By end of second semester
<input type="checkbox"/> Annual committee meeting [Report of Advisory Committee Meetings (Departmental G-1)]	Fall semester of Year 2
<input type="checkbox"/> Oral Comprehensive Exam (Botany MS only) [Plan of Study Form (Departmental G-2); Student Performance Rubrics for Program Assessment (for Committee members)]	Fall semester of Year 2
<input type="checkbox"/> Thesis Defense. Submit Thesis to committee two full weeks before the defense and advertise seminar 4 days prior. [Certificate for Awarding the Master's Degree (Graduate Form M-1); Student Performance Rubrics for Program Assessment (for Committee members)]	End of Year 2
<input type="checkbox"/> Submit Form M-1 (Certificate for Awarding the Master's Degree) and Form M-2 (signed Thesis Title page) to the Graduate School.	At least 10 business days prior to commencement
<input type="checkbox"/> Provide a final PDF file and hardcopy of the approved Thesis to the Department and upload to Ohio-Link.	See Graduate School for OhioLink deadlines
<input type="checkbox"/> Submit DARS and approved plan of study to the Registrar for approval.	At least 10 business days prior to commencement
<input type="checkbox"/> Submit completed final annual report to the Graduate advisor	Before leaving
<input type="checkbox"/> Exit interview with Chair or one of the Graduate Advisors	Before leaving

Ph.D. Program Progress Checklist (assuming Masters Bypass; for students entering with M.S. target dates may be modified according to Section G. Target Dates for Graduate Student Milestones)

Event [required forms listed after each event]	Target date
<input type="checkbox"/> Choose advisor and committee members. [Plan of Study Form (Departmental G-2)]	By end of first semester
<input type="checkbox"/> Obtain committee approval for a plan of study [Plan of Study Form (Departmental G-2)]	By end of first semester
<input type="checkbox"/> Annual committee meeting [Form: Report of Advisory Committee Meetings (Departmental G-1)]	Once each Year starting in Year 2
<input type="checkbox"/> Petition for Bypass	Fall Semester of Year 2
<input type="checkbox"/> Defend Dissertation proposal [Defense of Research Proposal Approval Form (Departmental G-3)]	Fall Semester of Year 3*
<input type="checkbox"/> Submit Request for Appointment of Doctoral Comprehensive Examination Committee to Graduate school. [Graduate School Form D-1]	At least 10 business days prior to comprehensive
<input type="checkbox"/> Written and Oral Comprehensive Exam [Results of Comprehensive Exam for the Doctoral Degree and Application for Candidacy (Graduate School Form D-2); Student Performance Rubrics for Program Assessment (for Committee members)]	Spring Semester of Year 3*
<input type="checkbox"/> Departmental Seminar	Fall or Spring Semester of Year 6
<input type="checkbox"/> Submit Request for Appointment of Doctoral Final Examination Committee to Graduate School. [Graduate School Form D-3]	At least 10 business days prior to dissertation defense
<input type="checkbox"/> Dissertation Defense. Submit Dissertation to committee two full weeks before the defense and advertise seminar 4 days prior. [Graduate School Form D-4. Results of Final Examination and Certificate for Awarding the Doctoral Degree; Student Performance Rubrics for Program Assessment (for Committee members)]	End of Year 6
<input type="checkbox"/> Submit Form D-4 (Results of Final Examination and Certificate for Awarding the Doctoral Degree) and Form D-5 (signed Dissertation Title page) to the Graduate School.	At least 10 business days prior to commencement
<input type="checkbox"/> Provide a final PDF file and hardcopy of the approved Dissertation to the Department and upload to Ohio-Link.	See Graduate School for OhioLink deadlines
<input type="checkbox"/> Submit DARS and approved plan of study to the Registrar for approval.	At least 10 business days prior to commencement
<input type="checkbox"/> Submit completed final annual report to the Graduate advisor	Before leaving
<input type="checkbox"/> Exit interview with Chair or one of the Graduate Advisors	Before leaving

*A student's committee may approve switching the target semester deadlines for the Proposal Defense and the Comprehensive exam if they deem it more appropriate for that student's progress.

I. Requirements for the Biology Department Affiliated Graduate Programs

MASTER OF SCIENCE (M.S.) IN BIOLOGY (30 credit hours)

Course Requirements

Pedagogy training: Complete BIO 689 during the week preceding your first fall semester in residence, and complete BIO 601 during your first fall semester in residence.

At least three (3) graduate seminars (BIO 650, 710, or equivalent) are required.

A minimum of three (3) graduate level (e.g., 500 or above) courses, of 3 credits or more.

Six to 12 hours of BIO 700, for a minimum total of 30 semester hours of graduate credit.

[Note, M.S. students should register for BIO677 Independent study instead of BIO700 for their first two semesters in the program, and BIO700 for the remainder of the M.S.]

Diagnostic Examinations

M.S. students must present and defend a thesis proposal. All students must present and defend their thesis.

Ph.D. IN BIOLOGY (60 credit hours)

Admission requirements

To be admitted into the Ph.D. program, students must have completed a research-based Master's degree with a written thesis, OR complete 30 semester hours of graduate work and gain approval of their Graduate Committee to bypass the Master's degree.

Course Requirements

Pedagogy training: Complete BIO 689 during the week preceding your first fall semester in residence, and complete BIO 601 during your first fall semester in residence (incoming students only).

At least seven (7) graduate seminars are required if all graduate work is completed at Miami University. A minimum of four (4) graduate seminars are required if the M.S. degree is obtained at another institution.

A minimum of three (3) graduate level (e.g., 500 or above) courses, of 3 credits or more, with a 'B' or higher with at least one course in the Department of Biology. Graduate level courses taken prior to entering the Ph.D. program may be used to satisfy this requirement at the discretion of the student's Doctoral Advisory Committee.

A minimum of 30 semester hours of BIO 850.

[Note, Ph.D. students register for BIO720 Graduate Research instead of BIO850 prior to passing their comprehensive exams]

Diagnostic Examinations

Ph.D. students must pass an oral and written comprehensive exam and defend a dissertation proposal. All students must present and defend their dissertation.

MASTER OF SCIENCE (M.S.) IN BOTANY (30 credit hours)

Course Requirements

Pedagogy training: Complete BIO 689 during the week preceding your first fall semester in residence, and complete BIO 601 during your first fall semester in residence.

At least one (1) graduate seminar (BIO 650, 710, or equivalent) is required

A minimum of four (4) graduate level (e.g., 500 or above) courses, of 3 credits or more. Three of these courses are chosen from 3 of the 4 core areas in Botany:

- Ecology, taxonomy, or systematics
 - 522 (Population Genetics), 567 (Conservation Biology), 671 (Population and Community Ecology), 672 (Ecosystems and Global Ecology)
 - Other advanced courses in evolution, ecology, or taxonomy as approved by your committee
- Structure and development
 - BIO 502 (Plant Anatomy), 503 (Plant Development)
 - Other advanced courses in plant structure or development
- Cell biology, molecular biology, genetics, or physiology
 - BIO 525 (Plant Physiology), 605 (Adv. Molecular Biology), 606 (Adv. Cell Biology)
 - Other advanced courses in molecular biology and genetics,
- Applied Skills
 - 566 (Bioinformatics), 581/582 (EM Theory+SEM Lab), 581/583 (EM Theory + TEM Lab)
 - Other courses in statistics methods, GIS, computer science & informatics as approved by your committee

Up to one (1) course may be substituted by an advanced undergraduate course with a grade of B or higher taken at Miami University or another institution.

Six to 12 hours of BIO 700, for a minimum total of 30 semester hours of graduate credit

[Note, M.S. students should register for BIO677 Independent study instead of BIO700 for their first two semesters in the program, and BIO700 for the remainder of the M.S.]

Diagnostic Examinations

M.S. students must present and defend a thesis proposal. All students must present and defend their thesis.

Note, there is no Ph.D program in Botany; however, students interested in pursuing a Ph.D. in the field of Botany or Plant biology should enroll in the Ph.D. program in Biology and pursue research with an appropriate advisor.

MASTER OF SCIENCE (M.S.) IN CELL, MOLECULAR, AND STRUCTURAL BIOLOGY (30 credit hours)

Course Requirements

Pedagogy training: Complete BIO 689 during the week preceding your first fall semester in residence, and complete BIO 601 during your first fall semester in residence.

At least one (1) graduate seminar in Molecular Biology (BIO 650) is required; students are encouraged to register for additional seminars related to their research interests.

Select one course from two of the three core areas (one course must be at the 600 level):

- Biochemistry
 - CHM 532 (Fundamentals of Biochemistry)
- Cell Biology
 - BIO 571 (Molecular Physiology), BIO/MBI 606 (Adv. Cell Biology)
- Molecular Biology
 - BIO 544 (Molecular Biology), BIO/MBI 605 (Adv. Molecular Biology)

Select one course from the Structural Biology area: BIO 566 (Bioinformatics computing skills), BIO/MBI 524 (Analytical Bioinstrumentation), BIO/MBI 581 (Theory of Electron Microscopy) with either BIO/MBI 582 (SEM Lab) or BIO/MBI 583 (TEM Lab), CHM 770R (Biological Magnetic Resonance), CHM 760P (Protein X-Ray Crystallography), MBI 585 (Bioinformatics Principles)

Additional graduate courses tailored to the particular research interest of the student that are approved by the student's graduate committee and the CMSB Chair may be taken.

Diagnostic Examinations

M.S. students must present and defend a thesis proposal. All students must present and defend their thesis.

PH.D. IN CELL, MOLECULAR, AND STRUCTURAL BIOLOGY (60 credit hours)

Course Requirements

Course requirements are the same as for the M.S. (above), with the exception that at least three (3) graduate seminars in Molecular Biology (BIO 650) are required.

Additional graduate courses tailored to the particular research interest of the student and approved by the student's graduate committee and the CMSB Chair may be taken.

Diagnostic Examinations

Ph.D. students must pass an oral and written comprehensive exam and defend a dissertation proposal. All students must present and defend their dissertation.

NOTE: CMSB students should refer to the CMSB Program Guidelines for program-specific requirements and required forms. Some requirements, such as rotation timelines, advisor selection, committee formation, and comprehensive exams, may vary relative to those listed in the Biology Department Guide to Graduate Programs.

ECOLOGY M.S. (30 credit hours, M.S. IN BOTANY OR BIOLOGY WITH ECOLOGY CERTIFICATE)

Course Requirements

Pedagogy training: Complete BIO 689 during the week preceding your first fall semester in residence, and complete BIO 601 during your first fall semester in residence.

At least two (2) graduate seminars of topical relevance to ecology.

A minimum of twelve (12) credits of graduate level (e.g., 500 or above). These must include one course in population/community ecology, one course in ecosystem/global ecology, one graduate course in plant biology (Botany M.S.) or biology (Biology M.S.), not including those used to satisfy requirements 1 or 2 above, and one course in statistics or mathematical modeling

Diagnostic Examinations

M.S. students must pass an oral comprehensive exam covering a breadth of topics in ecology and related areas. Specific topics will be assigned by the student's committee. Students who fail to pass may retake the exam once, in a format decided by their committee.

PH.D. IN ECOLOGY, EVOLUTION, AND ENVIRONMENTAL BIOLOGY (60 credit hours)

Course Requirements

At least five (5) graduate seminars of topical relevance to EEEB. Two of these seminar credits will be taken in year 1 of the program: BIO 601, and BIO 710C (Emerging Trends in Ecology, Evolution, and Environmental Biology). The other three (3) seminars may be taken from those offered by EEEB participating departments after being approved as EEEB-related seminars.

A minimum of twelve (12) credits of graduate level courses (e.g., 500 or above). At least two (2) of these courses must be officially designated EEEB courses, and at least one (1) additional course must be from the student's home department.

A minimum of 30 semester hours of graduate research (850 Research for Doctoral Dissertation; course designation is home department, e.g. BIO850).

[Note, Ph.D. students register for 720 Graduate Research instead of 850 prior to passing their comprehensive exams]

Diagnostic Examinations

Ph.D. students must pass an oral and written comprehensive exam and defend a dissertation proposal. All students must present and defend their dissertation.

Appendix A. Graduate Student Funding Opportunities at Miami U

Summary of Awards and dates due (2014-2015):

<u>Awards:</u>	<u>Due date:</u>
1) Graduate Achievement Fund	Oct 31, 2014; Apr 3, 2015
2) Thesis/Dissertation Support	Nov 1; Apr 1
3) Marjorie Post Farrington Scholarship	Apr 3, 2015
4) Graduate Travel Fund	Oct 1; Mar 1; June 1
5) DUOS	Oct 14, 2014
6) Dissertation Scholarships	Mar 15
7) Grad Student Publication Awards	Open Submission

Description of Awards:

Applications for some of the awards below can be found at: <https://miamioh.edu/graduate-school/awards-recognition/index.html>

1) Graduate Achievement Award: The Graduate Achievement Award is designed to recognize significant completed achievement in any external research or creative activity by full and part-time graduate students. Achievement is defined as a completed piece of research or other creative activity that has been recognized by some external (to the home department) organization or selected by the academic department for regional or national presentation (in fields where the accepted standard is departmental selection). A completed piece of research means that the presentation has already occurred or is in the process of being published. The Graduate Achievement Award fund is supported by gifts from Alumni and Friends of Miami University. More information at: <https://miamioh.edu/graduate-school/awards-recognition/graduate-achievement-award/index.html>

2) Master's Thesis or Dissertation Research Support: The Associate Provost for Research and the Dean of the Graduate School will entertain requests for unusual expenses associated with a student's research for the doctoral dissertation. There is no application form, but you must briefly describe your dissertation or thesis project and explain why these expenses are necessary and offer a tentative budget. Students must also submit a letter of support from the advisor. Awards will not exceed \$600 for doctoral students and \$300 for Master's students, and will often be less, depending on the demand. To be eligible a doctoral student must have passed the comprehensive exams. Decisions on this special funding will be made after **November 1** and **April 1**. Written requests to: gradschool@miamioh.edu. Information at: <https://miamioh.edu/graduate-school/awards-recognition/thesis-dissertation-research-support/index.html>

3) Marjorie Post Farrington Scholarship: This \$1,000 scholarship is for full-time graduate students in any area of study. The award is made primarily on merit and secondarily on financial need. Financial need must be established and the student must be eligible to file the FAFSA. The student who is selected may also be appointed to a graduate assistantship or teaching assistantship. Selection of the recipients is made by the Graduate Council, Student Financial Aid Committee. Further information may be obtained by contacting the Graduate School, 102 Roudebush Hall, (513) 529-3734, or at <https://miamioh.edu/graduate-school/awards-recognition/marjorie-post-farrington-scholarship/index.html>

4) Graduate Travel: Graduate Student Association (G.S.A.) Travel Assistance Fund: The G.S.A. Travel Assistance Fund is designed to reimburse graduate students for travel to meetings, conventions,

conferences, and workshops sponsored by professional organizations. The fund is administered by G.S.A. The Graduate School and G.S.A. use the same travel fund application, but questions about the fund or the process should be directed to the G.S.A. officers. Deadlines for each round of funding are the same for the G.S.A. and the Graduate School Travel Funds – October 1st, March 1st, and June 1st. The application for the G.S.A. and the Graduate School Travel Funds can be obtained by going to the Graduate School's webpage at <https://miamioh.edu/graduate-school/index.html>, and then clicking on the "Forms and Publications" link. <http://miamioh.edu/graduate-studies/forms-publications/index.html>

5) DUOS The Doctoral-Undergraduate Opportunities for Scholarship: DUOS is an initiative aimed at heightening the synergy between graduate and undergraduate programs at Miami University, sponsored by the Graduate School, the Office of Advancement of Research and Scholarship, and Miami's Preparing Future Faculty initiative. The deadline is **October 13**. This program enables Miami undergraduates to do research or other creative activities with the guidance of a graduate student mentor. Students may request up to \$1,000 per project. Applications may be initiated by either graduates or undergraduates, but the undergraduate student is to have intellectual ownership of the project and the submitted application must be agreed to and signed by both students. Application to the program is open to any Miami University undergraduate student and any post-master's doctoral student in good standing who agree to abide by program requirements. http://www.units.miamioh.edu/oars/undergrad_research/duos/DUOS-Guidelines-and-Application.pdf

6) Dissertation Scholarships: Dissertation scholarships are awarded to doctoral candidates who are selected by the individual departments. This selection is based on the merits of the student's proposed dissertation and the probability of the doctoral degree being awarded within the year (by the following August). These are service-free awards. The department offering the award determines stipends for dissertation fellows. For more information see the graduate handbook: <https://www.muohio.edu/graduate-studies/forms-publications/index.html>.

7) Biology Graduate Student Publication Awards: To reward publication efforts of our graduate students, the Biology Department will offer an additional \$300 for travel to meetings for each manuscript where the graduate student is a) the first-author or b) a co-author on a manuscript with an undergraduate first-author, resulting from mentorship from the graduate student. Manuscripts should be "in press" or published beginning 1 January 2015. Students may apply for a travel award for each paper once. To apply, please fill out this form and submit it to Ms. Gwen Franz, hartgk@miamioh.edu.

Appendix B. List of forms to be submitted and maintained for M.S. and Ph.D. programs

M.S. Program Forms

- 1. Report of Advisory Committee Meetings (Departmental G-1). Update once per year.
- 2. Plan of Study Form (Departmental G-2). Due no later than end of 2nd semester in residence.
- 3. Defense of Research Proposal Approval Form (Departmental G-3). Due no later than 1 semester prior to final defense of thesis.
- 4. Form M-1. Certificate for Awarding the Master's Degree (Grad School). Submitted after passing the final defense and at least 10 business days prior to applicable commencement date.
- 5. Form M-2. Thesis Title page. Signed and submitted at least 10 business days prior to applicable commencement date.

Ph.D. Program Forms

- 1. Report of Doctoral Advisory Committee Meetings (Departmental). Meet at least once per year.
- 2. Plan of Study Form (Departmental). Due no later than end of 2nd semester in residence.
- 3. Form D-1. Request for Appointment of Doctoral Comprehensive Examination Committee (Grad School). Due 10 business days prior to beginning of exam.
- 4. Form D-2. Results of Comprehensive Exam for the Doctoral Degree and Application for Candidacy (Grad School). Submitted after completion of written and oral exams.
- 5. Defense of Research Proposal Approval Form (Departmental). Due no later than 2 semesters prior to final defense of dissertation.
- 6. Form D-3. Request for Appointment of Doctoral Final Examination Committee (Grad School). Due 10 business days prior to final defense of dissertation.
- 7. Form D-4. Results of Final Examination and Certificate for Awarding the Doctoral Degree (Grad School). Submitted after passing the final defense and at least 10 business days prior to applicable commencement date.
- 8. Form D-5: Certificate for Approving the Dissertation (i.e. Dissertation title page). Signed and submitted at least 10 business days prior to applicable commencement date.

Student Progress Forms

- All graduate students are required to submit updated Annual Progress Reports (Departmental AP) each year.

Student Performance Rubrics for Program Assessment

- Committee members will fill out student performance rubrics for the comprehensive exam (Ph.D. and Botany M.S.) and Thesis/Dissertation defense

Appendix C. Graduate School and Departmental Forms

Graduate School forms (all forms available online through the graduate school website: <https://miamioh.edu/graduate-school/current-students/steps-to-graduation/index.html>)

Form ID	Required for:	Form title
M-1	M.S.	Certificate for Awarding the Master's Degree
D-1	Ph.D.	Request for Appointment of Doctoral Comprehensive Examination Committee
D-2	Ph.D.	Results of Comprehensive Exam for the Doctoral Degree and Application for Candidacy
D-3	Ph.D.	Request for Appointment of Doctoral Final Examination Committee
D-4	Ph.D.	Results of Final Examination and Certificate for Awarding the Doctoral Degree
D-5	Ph.D.	Certificate for Approving the Dissertation (i.e. Dissertation title page).

Biology Department forms included in Appendix C (in order of appearance; electronic copies of Departmental forms are also available from the Biology Department office):

Form ID	Required for:	Form title
Biology Department Committee Forms		
G-1	M.S./Ph.D.	Department of Biology Record of Graduate Committee Meetings
G-2	M.S./Ph.D.	Plan of Study for Biology Department Graduate Programs
G-3	M.S./Ph.D.	Defense of Research Proposal Approval Form
Biology Department Application Forms		
BP	M.S.	Biology Department Master's Bypass Approval Form
DS	Ph.D.	Dissertation Scholarship Guidelines
TA	M.S./Ph.D.	Requests for Financial Support to Present Paper or Poster (Travel Award)
PA	M.S./Ph.D.	Biology Graduate Student Publication Awards
Student Progress Forms		
AP	M.S./Ph.D.	Annual Progress Form (Student will update this form yearly)
Student Performance Rubric for Program Assessment (See Biology office for copies)		
	M.S./Ph.D.	Assessment rubric for Comprehensive Exam (Ph.D. and Botany M.S.) and Thesis/Dissertation Written and Oral Defense (Ph.D. and M.S.)

Department of Biology Record of Graduate Committee Meetings

Student: _____ Degree Program: _____ Admitted (mo/yr): _____

Committee Members:

(minimum 3 for M.S., 4 plus 1 grad school rep for Ph.D)

Name (Print)	Initials (for ID below)	Dates served (mo/yr):
_____ (Advisor)	_____	_____
_____ (Co-Advisor if applicable)	_____	_____
_____ (Committee member)	_____	_____
_____ (Committee member)	_____	_____
_____ (Committee member)	_____	_____
_____ (Grad School Representative ²)	_____	_____

Record of Graduate Committee Meetings

(Graduate student advisory committees should meet at least once a year.)

Meeting Date (dd/mo/yr)	Topic	Members present (initials)
1) _____	_____	_____
2) _____	_____	_____
3) _____	_____	_____
4) _____	_____	_____
5) _____	_____	_____
6) _____	_____	_____
7) _____	_____	_____
8) _____	_____	_____
9) _____	_____	_____
10) _____	_____	_____

Plan of Study for Biology Department Affiliated Graduate Programs*

*Note, CMSB has its own program-specific form

Name of Student: _____ Admitted (mo/yr): _____

Degree Program: **M.S. Ph.D.** Graduate Program: **Biology Botany EEEB**

A. Undergraduate Courses (Courses to be taken to address deficiencies in undergraduate course work)

Course Title (Dept/No./credits)	Semester	Year
1) _____	_____	_____
2) _____	_____	_____

B. Graduate Courses (see Biology and Botany Program descriptions for specific program requirements; Botany students list approved substitutes for Area requirements and indicate institution).

Course Title (Dept/No./credits)	Semester	Year	Area (Bot only)	EEEEB course (EEEEB only)
1) _____	_____	_____	_____	_____
2) _____	_____	_____	_____	_____
3) _____	_____	_____	_____	_____
4) _____	_____	_____	_____	_____
5) _____	_____	_____	_____	_____
6) _____	_____	_____	_____	_____

C. Seminars (see Biology, Botany, and EEEB Program descriptions for specific program requirements)

	Semester	Year
1) BIO 689: Pedagogy	Fall	_____
2) BIO 601: Graduate Colloquium	Fall	_____
3) BIO 650 or BIO 710 (for EEEB also GLG, MBI, GEO 710)	All listed in DARS	
4) Seminar equivalents (if applicable, list below)	_____	_____
_____	_____	_____
_____	_____	_____

D. Research

For M.S.: all BIO 677 (semesters 1 & 2) and BIO 700 (subsequent semesters) listed in DARS.
 For Ph.D.: all BIO 720 (pre-comps) and BIO 800 (post-comps) listed in DARS.

E. Graduate Committee

Major Professor: _____ Date Selected: _____
 Graduate Committee Members: _____ Date Selected: _____

Graduate School Representative (Ph.D. only): _____

Department Chair Approval**: _____ Date: _____

**Approval must be obtained before first committee meeting.

F. Plan of Study Approval (Committee members' initials required):

Original Plan of Study: _____ Date: _____

Revisions to Plan of Study: _____ Date: _____
 _____ Date: _____

Masters Oral Comprehensive (Botany M.S. only): _____ Date: _____

Defense of Research Proposal Approval Form

Student's name: _____ Degree Program: _____

Title of Thesis/Dissertation Proposal: _____

The above named student has presented and defended a written proposal for research to be conducted in partial fulfillment of the requirements for a graduate degree in Biology/Botany.

Signatures (with dates) of the Thesis/Dissertation Committee members¹ approving this Proposal:

Name (Print)	Signature	Date
_____ (Advisor)	_____	_____
_____ (Co-Advisor if applicable)	_____	_____
_____ (Committee member)	_____	_____
_____ (Committee member)	_____	_____
_____ (Committee member)	_____	_____
_____ (Grad School Representative ²)	_____	_____

¹at least two other committee members for M.S. Thesis and three for Ph.D. Dissertation Committees.

²Ph.D. Committee only

Biology Department Master's Bypass Approval Form

Applications to bypass the Master's degree and to be admitted to the Ph.D. program should be approved by the student's Graduate committee and forwarded to the GAC chair no later than the end of the third semester of residence to the GAC chair in order to be admitted to the Ph.D. program in the 4th semester. The student may then submit a formal request to change their major online (<https://miamioh.edu/graduate-school/student-resources/index.html>), scroll to Change of Major/Degree Request Form under "Forms").

A. Student Information

Name of Student: _____ Admitted (mo/yr): _____
 Name of Advisor: _____ Graduate Program: **Biology Botany**
 Current GPA: _____ Semester application submitted: _____

B. Graduate Courses Taken

Course No.	Course Title	Semester	Year	Grade
1) _____	_____	_____	_____	_____
2) _____	_____	_____	_____	_____
3) _____	_____	_____	_____	_____
4) _____	_____	_____	_____	_____
5) _____	_____	_____	_____	_____

C. Justification for bypassing the Master's degree (Limit: 2 pages, double spaced)

Please attach your justification for converting to the Ph.D. program. Evidence that you are prepared to enter the Ph.D. program could include a summary of the data you have already collected and analyzed, how your current research has positioned you for future investigations (i.e., doctoral research), a brief description of any manuscripts on which you are author or co-author (and when they might be submitted), as well as any presentation(s) you have made at professional meetings.

D. Signatures of approval

	<u>Date</u>
_____ Student	_____
_____ Major Advisor	_____
_____ Committee Member	_____
_____ Committee Member	_____
_____ Chair of the GAC	_____

Criteria for Dissertation Scholarships

Due March 15th

A Dissertation Scholarship is a service-free award for doctoral candidates in the final year of our program. The department may choose to make no award in a given year or any number of awards up to the maximum allowed by the Graduate School for any students in Biology, Botany, CMSB, or EEEB. As specified by the Graduate School, selection by the department will be based on the merits of the proposed dissertation and on the probability of the doctoral degree being awarded within the upcoming academic year.

Applicants for Dissertation Scholarships must submit their completed application materials to the Graduate Advisory Committee (GAC) by the date requested (March 15th, 2015). The GAC will review all applications and will make a recommendation to the faculty of the Biology Department. The decision of the Biology Department will be final.

Each applicant for a Dissertation Scholarship is encouraged to present as strong a case as possible. The applicant must have completed her/his comprehensive exams and proposal defense by the application due date. The application must include:

- A current curriculum vitae
- A letter of endorsement from the major advisor(s) and two additional endorsements.
- A dissertation proposal
- Reprints of published papers or copies of manuscripts submitted
- Verification of completion of comprehensive exams and proposal defense (i.e., forms signed by your committee) by the application due date
- Any other materials pertinent to the application.

The merits of the proposed dissertation and the probability of completion of the degree will be evaluated on the basis of demonstrated accomplishments. Greatest weight will be given to the applicant's research potential as evidenced by the dissertation proposal, by progress to date, by publications, paper presentations, awards, research grants, etc., and by faculty (or other) endorsements. Consideration will be given to the independence, quality and innovativeness of the research, as perceived by the GAC, as well as to more quantitative aspects. The GAC will also consider, but will give lesser weight to, the academic performance of the applicant insofar as this evidences the probability of completion of the degree requirements. The teaching performance of an applicant will not be considered for the purposes of this award, except where such has impacted upon the progress of the applicant towards the completion of degree requirements.

**DEPARTMENT OF BIOLOGY
GRADUATE STUDENT ENRICHMENT FUNDS**

REQUEST FOR FINANCIAL SUPPORT TO PRESENT PAPER OR POSTER

Student's Name _____ **Date** _____

Name of Society or Organization _____

Location of meeting _____

Dates: _____

Title of Paper or Poster (circle one) _____

Co-authors(s): _____

Estimated expenses:

Travel _____

Registration _____

Housing _____

Meals _____

TOTAL _____

Advisor's Signature _____

This form must be submitted at least **one month** prior to the meeting. **You must be the presenting author in order to receive financial support.**

Attach a copy of the abstract for the paper or poster.

BIOLOGY GRADUATE STUDENT PUBLICATION AWARDS

To reward publication efforts of our graduate students, the Biology Department will offer an additional \$300 for travel to meetings for each manuscript where the graduate student is a) the first-author or b) a co-author on a manuscript with an undergraduate first-author, resulting from mentorship from the graduate student. Manuscripts should be "in press" or published beginning 1 January of the same year as the meeting. Students may apply for a travel award for each paper once. To apply, please fill out this form and submit it to Ms. Gwen Franz, hartgk@miamioh.edu.

 LAST NAME

FIRST NAME

Degree currently being sought: Ph.D. MS MA MATGraduate Degree Program: Biology Botany EEEB CMSBStudents may apply for a travel award for each paper once.

Manuscript Title: _____

Author(s): _____

Journal: _____

Issue & Page Numbers (if available): _____

Publication Date or Expected Publication (for *in press* publications): _____

Meeting to attend and date: _____

Please describe your contributed effort to the paper:

Graduate Student Signature _____ Date _____

Advisor's Signature _____ Date _____

GRADUATE STUDENT PROGRESS REPORT FOR _____ (year)
(Due each year on February 1st)

LAST NAME

FIRST NAME

Check all that apply:

- Annual report for period from January to December of _____ (year)
- Final annual report prior to graduating

For continuing students, indicate which semesters you will request funding (TA) for:

- Fall semester next academic year
- Spring semester next academic year

Progress toward the Degree:

1. Degree currently being sought: Ph.D. MS MA
If Ph.D., highest degree obtained prior: MS BS/BA
2. Graduate Degree Program: Biology Botany EEEB
3. Beginning date of current degree (Month/Year): _____
4. Total semesters (Fall/Spring) in program: _____
5. Degree requirements approved/passed:

	Completed (Y/N/n.a.)	Date (month/year) completed	Required completion date
Course of study approved	_____	_____	_____
Thesis/Dissertation proposal approved	_____	_____	_____
Comprehensive examination passed	_____	_____	_____

Summary of student accomplishments (indicate number for each category):

<u>Category:</u>	<u>For Year</u>	<u>Total to date</u>
1) <u>Publications</u>		
Submitted/in review	_____	n/a
Accepted/published	_____	_____
2) <u>Presentations at meetings</u>		
Oral presentations	_____	_____
Posters	_____	_____
3) <u>Grants</u>		
Submitted (external/internal)	_____/____	_____/____
Successful (external/internal)	_____/____	_____/____
4) <u>Teaching and Mentoring</u>		
Undergraduates mentored (#)	_____	_____
No. Courses taught (Spring/Fall)	_____/____	_____
Overall instructor rating (Spring/Fall)	_____/____	n/a

Advisor signature

I have reviewed and discussed the annual report and research progress summary with my student.

Advisor: _____ Date: _____

Student Accomplishments:

This evaluation is meant to be a running list of accomplishments for your entire graduate career. For the purpose of annual reports, bold any new entries to distinguish them from previous years' entries.

Student accomplishments:

1. List all articles published, in press, or submitted for review that are a result of your thesis or dissertation research.
 - a) Published or in press articles (include the full citation).
 - b) Submitted articles in review (indicate authors, title of article, journal title, date submitted)

2. List all presentations to date (most recent first) you have given directly related to your thesis or dissertation results (Indicate title of presentation, authors, month/year of presentation, Meeting or venue):
 - a) Oral presentations
 - b) Poster presentations

3. List all grants to date (most recent first) for which you have applied (Indicate title of project, month/year grant was submitted, granting agency, amount received if funded):
 - a) Funded external grants
 - b) Funded internal grants

4. Please list any non-standard assistantship/teaching experiences (RA, Lead TA, REU coordinator, lecture instructor, etc.).

5. Please list the name, affiliation, and mentorship period for students whom you have served as a research mentor. Also indicate any papers (published or submitted), presentations, or awards/grants (applied for or received) that resulted from these mentoring experiences:

6. For graduating students, please indicate next job/academic position (if known) following successful defense of your thesis/dissertation.

Research progress report:

For annual reports, provide a narrative of your research progress in the previous year (single spaced, 2 pages max). The narrative should include a statement of the major scientific question(s) or hypothesis(es) you are addressing. Specify exactly the portions of your proposed research for which you have: 1) completed sets of data, 2) preliminary data, 3) no data

Comments (*use this section to explain any unusual circumstances related to your annual progress report*):

Assessment Rubric for the Graduate Program in:

Biology Botany CMSB EEEB

M.S. Ph.D.

Evaluation of:

Written/Oral Comprehensive Examinations for Ph.D.

Final Dissertation/Thesis Defense

(This page should be filled out by the Committee Advisor prior to distribution to Committee)

Date(s) of Examination: _____

Examination Iteration: 1 2

Committee Members and Department

Chair of Evaluation Committee (Advisor): _____

Committee Member: _____

Committee Member: _____

Committee Member: _____

Graduate Representative: _____

At the conclusion of the written and oral examinations OR the thesis/dissertation defense, **each committee member should fill out performance rubrics and provide written comments on the pages provided.** For attributes for which a committee member feels the candidate does not meet expectations, short explanations should be provided in **Comments**. Completed forms are to be **turned in to the Committee Chair (usually the Advisor)**. Beyond the standard departmental accepted summary evaluation of the student's performance, the Committee Chair **MAY** also provide the student with the **Graduate Program Rubrics and Comments** from each committee member along with a verbal summary of these evaluations.

All examination documents (rubrics and written comments) must be completed regardless of the outcome of the written or oral examination.

A copy of the completed forms (both rubrics and written comments) must be sent to the Graduate Administrator (Darlene Davidson) within 2 working days.

Assessment Rubric for the Graduate Programs in Biology Botany CMSB EEEB

M.S. Ph.D.

Evaluation of:

Written/Oral Comprehensive Examination for Ph.D.

Final Thesis/Dissertation Defense

Completed by: _____ **Date:** _____

To be filled out by each committee member. Please check boxes for all evaluation criteria that you feel appropriate within each attribute category.

Attribute Expectations	Does not meet Expectations	Meets Expectations	Exceeds Expectations
Synthesizing current knowledge (<i>Learning objective 1</i>)			
Understands subject matter and pertinent literature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates understanding of theoretical concepts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develops testable hypotheses and/or predictions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Producing new knowledge (<i>Learning objective 2</i>)			
Responses/presentation draw(s) from knowledge in several disciplines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Responses reflect critical thinking skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Displays/presents creativity and insight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Research significantly impacts student's field of study (Thesis/Dissertation only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communicating ideas (<i>Learning objective 3</i>)			
Writing is clear and concise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Writing is logically organized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Few grammatical and spelling errors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Documentation is adequate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Presentation is logically organized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Responses to questions are coherent and complete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exhibits confidence in verbal communication skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Individual Committee Member Comments (Please feel free to use the back):

Overall assessment	Does not meet Expectations	Meets Expectations	Exceeds Expectations
Overall assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>