2025-2026 Handbook for Graduate Study in the Department of Integrative Biology

Guide to Graduate Study in Integrative Biology

Overview of Graduate Education in Integrative Biology

Program Goals and Overview

The overarching goal of the graduate program in Integrative Biology is to prepare a diverse group of students for productive and rewarding careers in the integrative study of organismal biology. Research conducted by Integrative Biology students and faculty at Michigan State University (MSU) is simultaneously reductionistic and synthetic. Using a diverse array of investigative techniques and working with a broad range of taxa, we seek to explain traits and the interactions of organisms and their environment across levels of biological organization ranging from the gene to the biosphere. We believe that the approach and nature of our science represents one of the department's greatest strengths. Although the reductionist work of biologists in the past has emphasized "taking organisms apart," an imperative of the future of integrative animal biology lies in building on current knowledge to "put organisms back together," particularly within the context of their complex natural habitats. Increasingly, studies of complex phenotypes or complex processes at the level of the whole organism or the population across geographic scales are relying on the tools of molecular biology, while, in parallel, many studies of molecular and cellular processes are examining the evolutionary history of these components of life's machinery and using these approaches to model system level change. Based on current faculty research and teaching interests, their publications, and their extramural grant dollars acquired, our greatest disciplinary strengths at present lie in the areas of ecology, evolutionary biology, neurobiology, developmental biology, and behavior. Regardless of whether our graduates hope to find work in academia, industry, government or elsewhere, we expect students trained in our department will apply these approaches and carry out original research that leads to future advances that require close interactions among researchers working in traditionally separate areas of biology. We also expect students to clearly communicate their ideas, assess the scientific research performed by others, and integrate new concepts to push the boundaries of biology. They must be well-informed about the current frontiers of knowledge in their focus areas and about the ethical issues and implications associated with the research they conduct. Graduate students will be expected to demonstrate growing mastery of various sub-disciplines within Integrative Biology that are associated with or complementary to their own research, both at their comprehensive examinations and at the oral defense of their dissertations.

In addition to engaging in and conducting excellent original research in integrative biology, our department seeks to create an inclusive and diverse community that allows for the integration of new ideas and approaches to learning and training the next generation of scientists and laypersons with interests beyond scientific disciplines. The Graduate School offers workshops on teaching, professional development, and other topics. The College of Natural Science offers workshops on cultural competency, the department of Integrative Biology is creating a graduate student mentoring program for incoming students, and we encourage interested students to consider joining the IBIO IDEA committee focused on improving Inclusivity, Diversity, Equity and Accessibility. Additional resources on graduate student organizations and affinity groups can be found here:

- https://grad.msu.edu/graduate-student-organizations
- https://msu.campuslabs.com/engage

The department offers three different degrees, Master of Science (Plan A), Master of Science (Plan B), and Doctor of Philosophy. Descriptions, requirements and a timeline for each of these degrees are described in the following pages. One year of residence is required, comprised of two consecutive semesters, involving the completion of credits at the level of full-time status of graduate work each semester (at least 6 credits per semester for PhD students and 9 credits per semester for MS students). Candidates for the doctoral degree may, with the approval of their Guidance Committee, conduct some work in absentia. You must be enrolled during the semesters when you take your comprehensive exam and during the semester in which you defend your thesis/dissertation. Students are expected to attend the bi-weekly Integrative Department of Biology Seminar Series and participate in the IBIO Graduate Student Organization, serving as a graduate student representative for one of the available positions at least one year during their tenure.

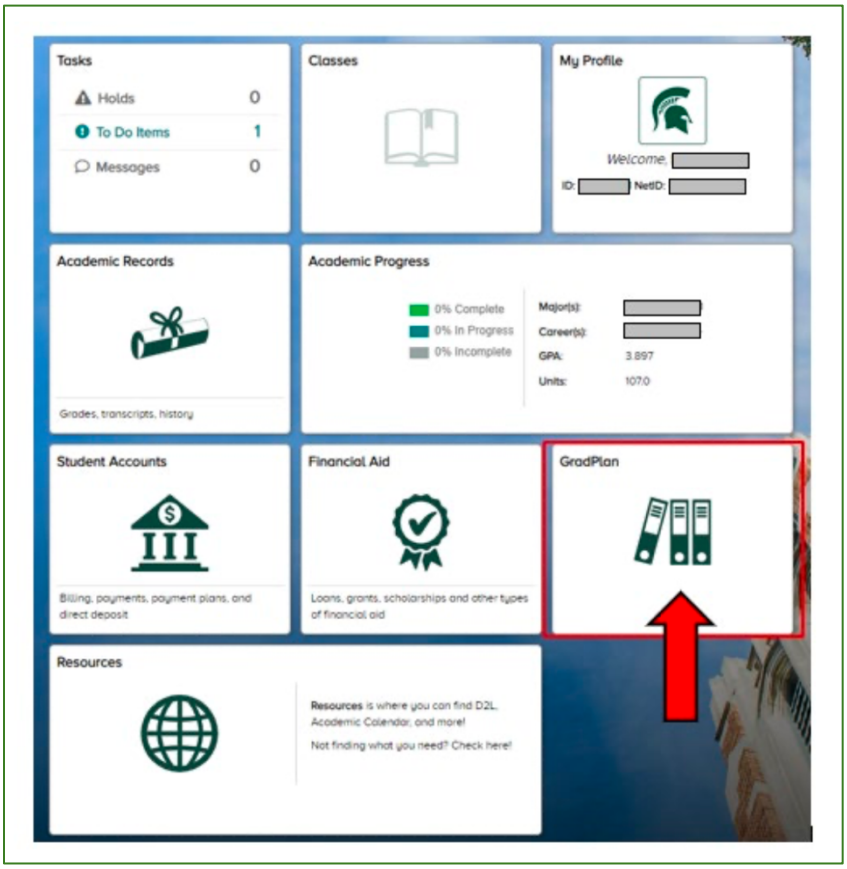
All doctoral and Master of Science Plan A students accepted into the graduate program in Integrative Biology are offered financial support in the form of teaching assistantships, research assistantships, and/or College of Natural Science and University fellowships. Doctoral students are guaranteed 5 years of support. Master's of Science Plan A students are guaranteed 3 years of support. Master's of Science Plan B students are not guaranteed any support but are eligible for assistantships if available. Graduate student salaries for the academic year range from $2,630.00 to $2,836.00 per month (based on a half-time appointment), plus medical benefits, as well as a 9-credit tuition and fee waiver per semester. Half-time teaching assistantships require 20 hours of work per week during the semester, helping with undergraduate courses. Half-time research assistantships require 20 hours per week of work on a faculty member's research grant.

Recruiting fellowships offered by the Graduate School or by the College of Natural Science are available for the strongest candidates. These fellowships require nomination by the Graduate Affairs Committee and the Director of Graduate Students. Students with especially strong academic records may be competitive for fellowships from governmental agencies such as the National Science Foundation, the Environmental Protection Agency (EPA), or from non-profit organizations that support higher education and research training. Additional funding opportunities are detailed at the end of the handbook.

GRADPLAN (via Student Information System) https://student.msu.edu/

GRADPLAN is the web-interactive system for all graduate students to create and store their degree plans and subsequent graduate program activities. Students should begin exploring GRADPLAN soon after their arrival. As a student decides on their committee composition, they can begin to input this information into GRADPLAN. MSU faculty and staff cannot input information into a student's GRADPLAN file but can see it through Grad Info, a linked system.

All students are required to use GRADPLAN to keep track of their progress. All forms needed are provided on the FORMS page of the IBIO Website or can be requested from the Graduate Program Coordinator. The Job Aid – GradPlan Student View is also a helpful document: GradPlan Job Aid



Program Components - The flowcharts and checklists below provide guidance for what is needed to complete each degree. Some check points have expected completion times, but there is some flexibility in the exact path each student takes.

Master of Science Degree (Plan A) - This plan emphasizes original research, but the breadth of the project is expected to be less than that of a Ph.D. Degree.

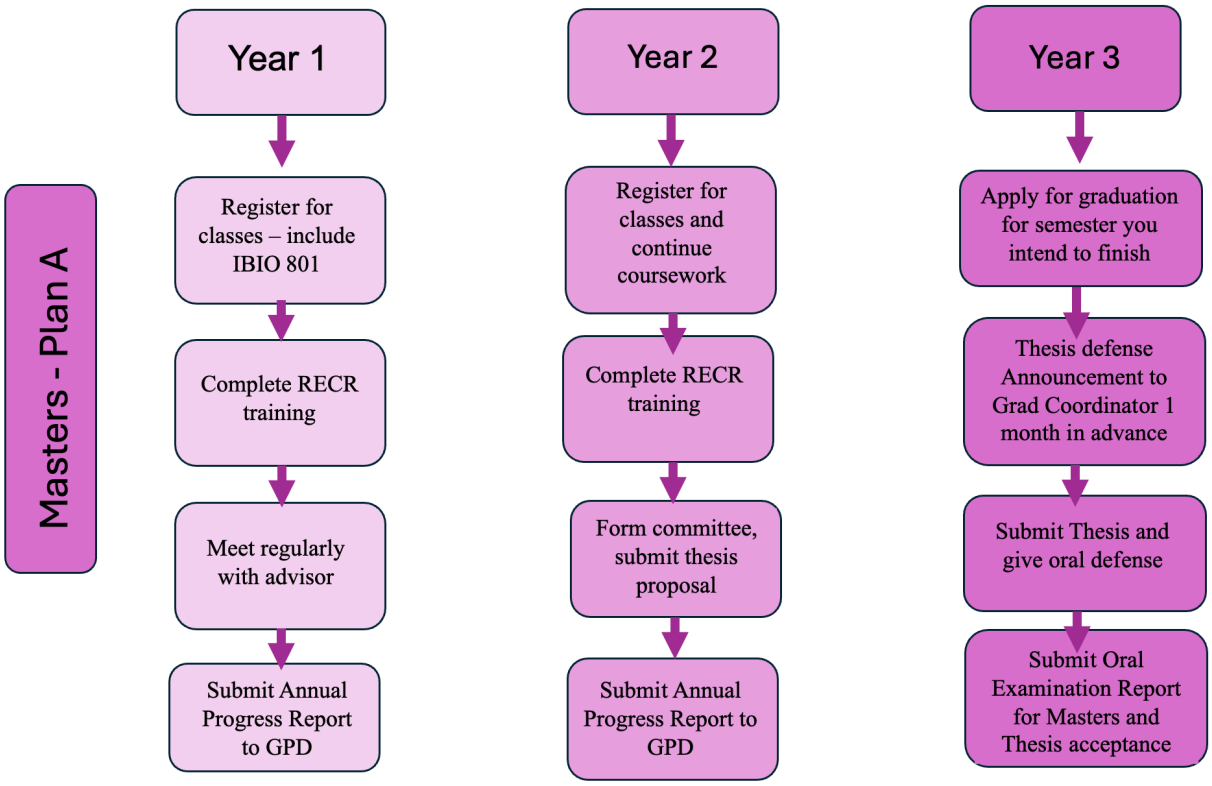


Figure 1. General overview for Masters – Plan A

Year One

1. Register for classes – MS students are required to take 9 credits.
2. Review the IBIO Graduate Student Handbook at the beginning of the semester and update Research Overview in GradPlan.
3. Complete mandatory Responsible and Ethical Conduct in Research (RECR) training, ideally in the first month. Additional information can be found here: https://grad.msu.edu/researchintegrity

CITI Modules Year 1

- Introduction to the Responsible Conduct of Research
- Authorship
- Plagiarism
- Research Misconduct

6 hours discussion-based education (complete before graduation)

4. Review the Relationship Violence and Sexual Misconduct Policy and complete training.
5. The focus of year one should be meeting regularly with your advisor, taking courses (including IBIO 801 which is required for all IBIO graduate students), deciding on a direction for your research, identifying members of your guidance committee, and holding an initial meeting with the committee if possible.
6. Towards the end of the spring semester complete the student portion of the Annual Progress Report, meet with your advisor to discuss your progress.
7. Submit the Annual Progress Report to the Graduate Program Director (Louise Mead) by May 15th. If you have not identified and/or met with your committee only the student and advisor signatures are required. Set up a meeting with the Graduate Program Director (Louise Mead) for follow-up first year review in May or June.

Year Two

1. Review the IBIO Graduate Student Handbook at the beginning of the semester and update Research Overview in GradPlan.
2. Complete Year Two of RECR requirements.

CITI Modules Year 2

Complete 3 of 6 possible RECR Basic modules:

- Collaborative Research
- Conflicts of Interest
- Data Management
- Mentoring
- Peer Review
- Financial Responsibility

3. Finalize the members of your guidance committee.
4. Enter Guidance Committee members into GradPlan.
5. Submit your Course Plan to GradPlan.

6. Continue coursework.
7. Submit an initial draft of your thesis proposal to your committee and schedule a committee meeting to discuss proposed research plan. The Thesis Proposal (Master of Science Plan A Candidates) is the document in which you describe to your guidance committee what you intend to accomplish in your thesis research. It should be clear what study or studies will be conducted in each chapter, and whether each component of the proposed work represents descriptive or explanatory science. Your committee will want to see a literature review in the introductory section of the proposal. The last section of the introductory section should make clear your own goals in relation to elucidating the phenomenon of interest. In each chapter in which you propose to conduct explanatory science, you should make clear what natural phenomenon you intend to explain, and clearly enumerate the hypotheses you plan to test, what your independent and dependent variables will be, and how exactly you will determine whether each hypothesis is supported by your data. It is often useful to include simple scatterplots or histograms (complete with careful axis labels, etc.) presenting alternative hypothetical results that would support or falsify each hypothesis. The thesis/dissertation proposal must be approved by the guidance committee.
8. Complete the student section of and Annual Progress Report, set up a meeting with your advisor to review and discuss your progress. Submit the Annual Progress Report to the Graduate Program Director by May 15.

Year Three

1. Submit an initial draft of your thesis to your guidance committee for comments. If you are not at the stage of having your thesis ready for review by your guidance committee by the beginning of the spring semester, please update your committee.
2. Complete the student section of and Annual Progress Report if not graduating, set up a meeting with your advisor to review and discuss your progress. Submit the Annual Progress Report to the Graduate Program Director by May 15.

All MS students are guaranteed three years of funding. If you have completed the degree requirements and are ready to graduate, follow the instructions below. If you require additional time to complete the degree, the time allowed before you need to submit for an extension is 5 years. Funding for additional semesters may be through your advisor or through a Graduate Teaching Assignment (GTA), but these are not guaranteed.

When you are ready to graduate you will follow the steps listed below:

- Apply for graduation in the beginning of semester you intend to finish, through the **Registrar's Office website**. Note that you need to be registered for at least 1 credit.
- One month before your thesis defense, fill out the form entitled, **Thesis Defense Announcement**, and submit this to the Department's graduate program coordinator (Katherine Terry).

- Submit your completed thesis to your guidance committee and give your final oral defense of your thesis research. Then submit the following completed forms to the Graduate Program Coordinator: **MS Thesis Acceptance Form** and **Report on Oral Examination for Masters.** Deadlines for Oral Examination and submissions of thesis to Graduate School will determine timing of the above. https://grad.msu.edu/etd/etd-deadline-dates.

Master of Science Degree (Plan B) - This program emphasizes coursework in a curriculum designed to achieve a defined educational objective.

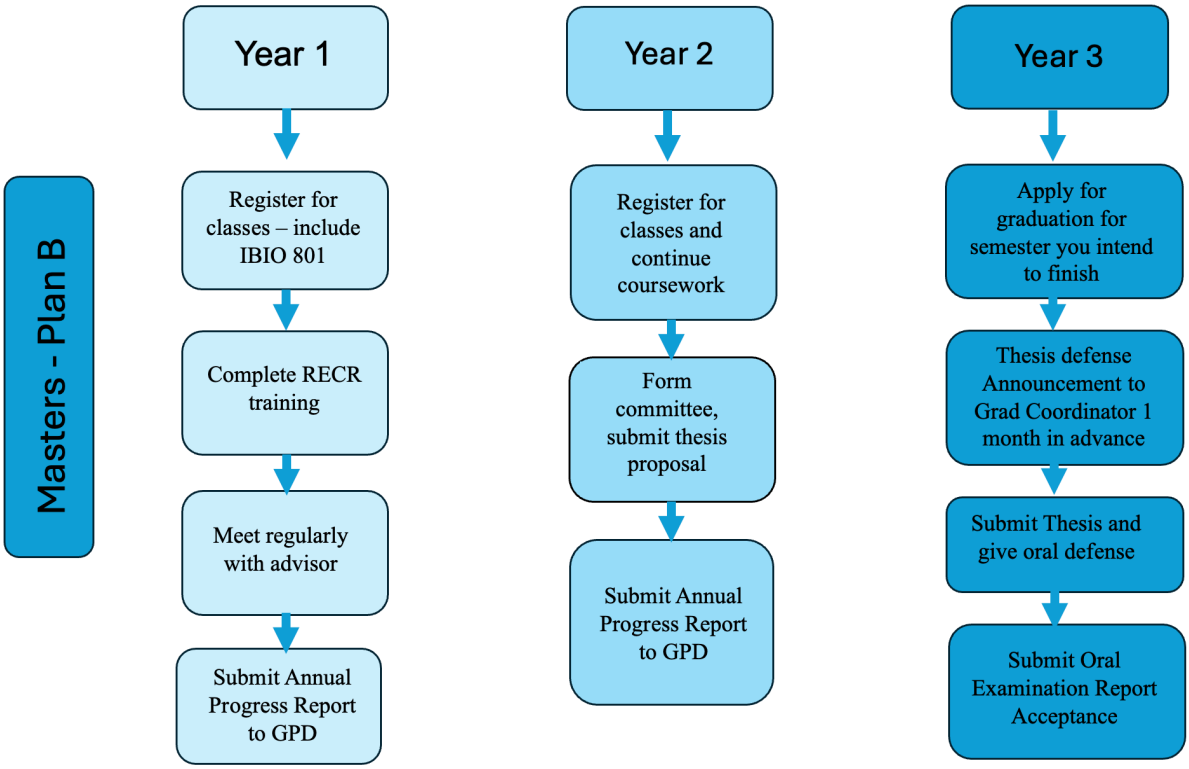
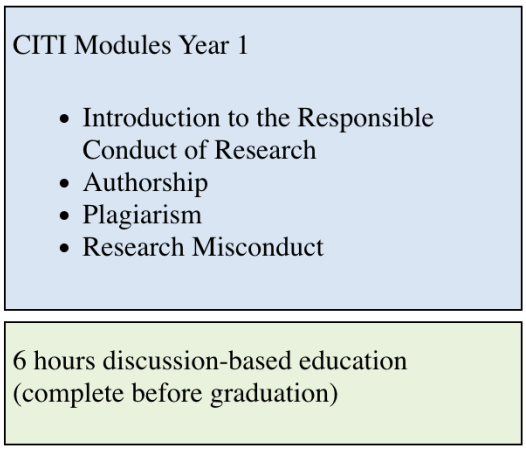


Figure 2. General overview for Masters – Plan B

Year One

1. Register for classes – MS students are required to take 9 credits.
2. Review the IBIO Graduate Student Handbook at the beginning of the semester and update Research Overview in GradPlan.
3. Complete mandatory Responsible and Ethical Conduct in Research (RECR) training. Additional information can be found here: https://grad.msu.edu/researchintegrity



4. Review the Relationship Violence and Sexual Misconduct Policy and complete training.
5. The focus of year one should be meeting regularly with your advisor, taking courses (including IBIO 801), deciding on a direction for your project, identifying members of your guidance committee, and holding an initial meeting with the committee if possible.
6. Complete the student portion of the Annual Progress Report, meet with your advisor to discuss your progress.
7. Submit the Annual Progress Report to the Graduate Program Director (Louise Mead) by May 15th. If you have not identified and/or met with your committee only the student and advisor signatures are required. Set up a meeting with the Graduate Program Director (Louise Mead) for follow-up first year review in May or June.

Year Two

1. Review the IBIO Graduate Student Handbook at the beginning of the semester and update Research Overview in GradPlan.
2. Finalize the members of your guidance committee and meet with the committee to review your research plan.
3. Enter Guidance Committee members into GradPlan.
4. Submit your Course Plan to GradPlan.
5. Submit your thesis outline to your guidance committee and meet with the committee to review your plan and progress. Plan B M.S. candidates complete independent project based on library research. This project is done while enrolled for at least 3 “Special problems” credits in IBIO 890.
6. Submit the Annual Progress Report to the Graduate Program Director by May 15.

Year Three

1. Review the IBIO Graduate Student Handbook at the beginning of the semester and update Research Overview in GradPlan.
2. Submit an initial draft of your thesis to your guidance committee for comments. If you are not at the stage of having your thesis ready for review by your guidance committee by the beginning of the spring semester, please update your committee.

3. Complete the student section of and Annual Progress Report if not graduating, set up a meeting with your advisor to review and discuss your progress. Submit the Annual Progress Report to the Graduate Program Director by May 15.

MS students are guaranteed three years of funding. If you have completed the degree requirements and are ready to graduate, follow the instructions below. If you require additional time to complete the degree, the time allowed before you need to submit for an extension is 5 years. To assist in funding you, it is possible to request funding through your advisor or through a Graduate Teaching Assignment (GTA), but these are not guaranteed.

When you are ready to graduate you will follow the steps listed below:

- Apply for graduation in the beginning of semester you intend to finish, through the **Registrar's Office website**.
- One month before your thesis defense, fill out the form entitled, **Thesis Defense Announcement**, and submit this to the Department's graduate program coordinator (Katherine Terry).
- Submit your completed thesis to your guidance committee and give your final oral defense of your thesis research. Then submit the following completed forms to the Graduate Program Coordinator: **MS Thesis Acceptance Form** and **Report on Oral Examination for Master's Degree**. In addition to these forms, you must also submit an updated Exit CV listing all publications, honors, awards, and teaching experience. Finally, you must submit a hard-bound copy of the thesis to the Graduate Program Coordinator for the Department.

Doctor of Philosophy Degree (Ph.D.)

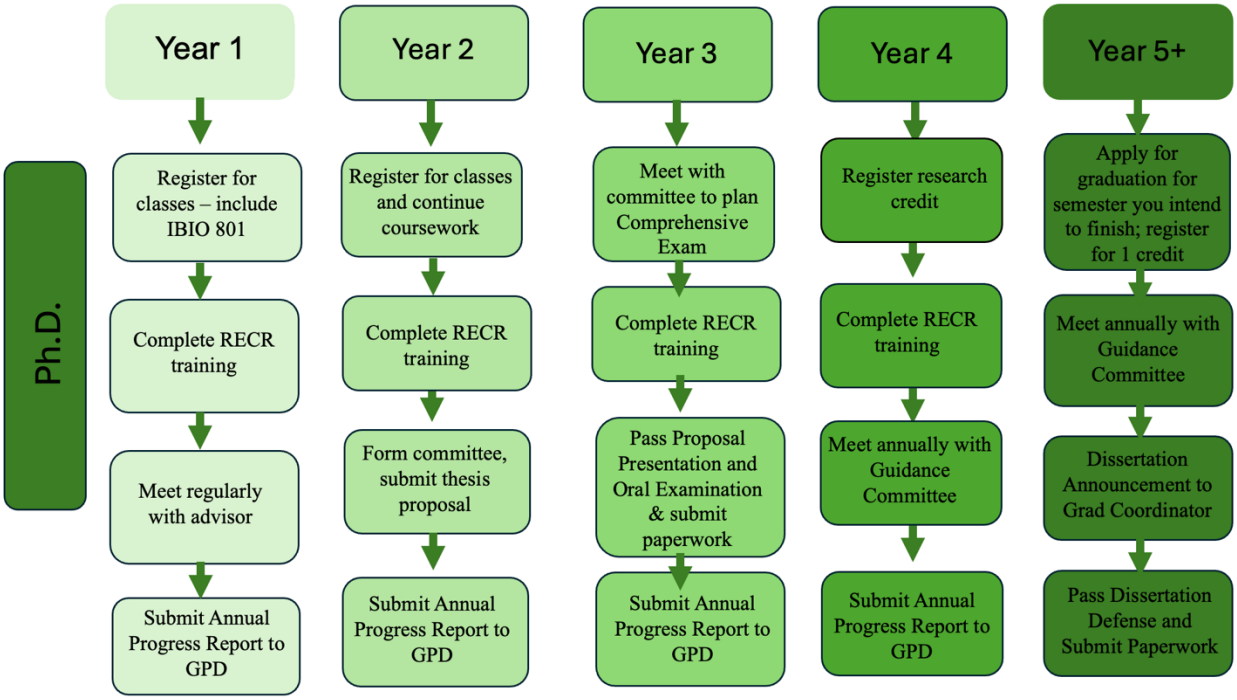


Figure 3. General overview for Ph.D.

Year One

1. Register for classes (see Table X below on requirements) – PhD students are required to take at least 6 credits.
2. Review the IBIO Graduate Student Handbook at the beginning of the semester and update Research Overview in GradPlan.
3. Complete mandatory Responsible and Ethical Conduct in Research (RECR) training. Additional information can be found here: https://grad.msu.edu/researchintegrity

CITI Modules Year 1

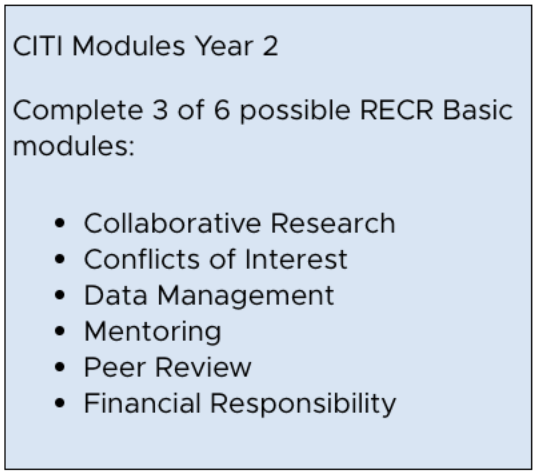
- Introduction to the Responsible Conduct of Research
- Authorship
- Plagiarism
- Research Misconduct

6 hours discussion-based education(complete before finishing comprehensive examination and entering candidacy status, doctoral students starting in Fall 2020 or later)

4. Review the Relationship Violence and Sexual Misconduct Policy and complete training.
5. The focus of year one should be meeting regularly with your advisor, taking courses (including IBIO 801 which is required for all IBIO graduate students), deciding on a direction for your research, identifying members of your guidance committee, and holding an initial meeting with the committee if possible.
6. Complete the student portion of the Annual Progress Report, meet with your advisor to discuss your progress.
7. Submit the Annual Progress Report to the Graduate Program Director (Louise Mead) by May 15th. If you have not identified and/or met with your committee only the student and advisor signatures are required. Set up a meeting with the Graduate Program Director (Louise Mead) for follow-up first year review in May or June.

Year Two

1. Review the IBIO Graduate Student Handbook at the beginning of the semester and update Research Overview in GradPlan.
2. Complete mandatory RECR training. Additional information can be found here: https://grad.msu.edu/researchintegrity



3. Finalize the members of your guidance committee.
4. Enter Guidance Committee members into GradPlan.
5. Submit your Course Plan to GradPlan.
6. Submit your dissertation outline to your guidance committee and meet with the committee to review your progress and receive feedback on research plans.
7. Submit the Annual Progress Report to the Graduate Program Director by May 15.

Year Three

1. Review the IBIO Graduate Student Handbook at the beginning of the semester and update Research Overview in GradPlan.
2. Complete Year 3 of RECR Requirements

Year 3 forward

3 hours of annual refresher education

- CITI modules not previously taken to fulfill Year 1 or 2 or another refresher year's requirements
- Department/College Workshops, brown-bag luncheons, group discussions that cover RECR related topics
- Graduate School RECR workshops not previously taken
- One-on-one discussions between the student and their advisor
- Other RECR related courses (non-CITI modules, Academic courses, etc.)

3. Begin work on dissertation proposal at the beginning of the third year.
4. Complete the Comprehensive Exam. Additional information regarding the specifics of the Comprehensive Exam can be found below.
5. Submit the Annual Progress Report to the Graduate Program Director by May 15.

Subsequent Years

1. Students must hold a committee meeting each year during which they will give their committee a complete update on their progress.
2. We strongly advise students to submit drafts of thesis chapters to their committee members for comments as the chapters are written, particularly if you want to submit those chapters as manuscripts to professional journals for publication. Your committee members can serve as excellent reviewers before your manuscript goes to review at a relevant journal. It is advisable to give them a two-to-three-week timeline for feedback, but if a particular committee member is unresponsive to your request for feedback, this should not unduly delay submission of your manuscripts to journals.
3. Complete and submit the Annual Progress Report to Graduate Program Director by May 15th.

Final semester

Apply for graduation in the beginning of semester you intend to finish through the Registrar's Office website.

One Month Before Your Dissertation Defense:

- Fill out the form entitled, Thesis Defense Announcement, and submit this to the Department's Graduate Program Coordinator.
- Submit your completed dissertation to your guidance committee, ideally before the 4th Friday of the semester, giving your committee the opportunity to review your dissertation before your defense.
- Schedule your defense ideally by the 9th Friday of the semester, completing and submitting the following forms to Katherine Terry.
- Give your final oral defense of your thesis research.
- When your committee has approved your dissertation and you have successfully defended it, submit to the Graduate Program Coordinator the form entitled, Record of Dissertation and Oral Examination Requirements for Doctoral Degree Candidates.
- Conferral of your degree requires that you submit your thesis to ProQuest. Semester deadlines for the initial submission and final submission can be found here: https://grad.msu.edu/etd/etd-deadline-dates.

Failure to meet these deadlines will delay confirmation of your PhD until the following semester. Plan your defense accordingly.

Degree Requirements

Overview of University, College, and Departmental Requirements

Appendix 1. Requirements for Degrees.

Policy Note: 24 credits are required for graduation; students can enroll for a max of 36 credits. Requests for overrides to exceed the maximum of 36 credits of 999 must be directed to the Office of the Registrar. Once a student has completed the Comprehensive Exam they can register for a single credit of 999.

Coursework

The faculty of the Department of Integrative Biology expect students to take advanced 800-900 level courses as part of their graduate education. **IBIO 801 is required for all candidates in Integrative Biology**. Additional courses should be selected through discussion with one's advisor, keeping in mind the courses that best prepare the student to conduct their research, while also considering future career plans. This includes the selection and use of appropriate statistical techniques. Students are also expected to have background knowledge of their study system, for example, if you plan to conduct your thesis on a particular species of fish, you would be well-advised to complete a course in Ichthyology if you have not already done so. Many thesis/dissertation projects require the use of specialized tools such as Geographic Information Systems (GIS), Histology, or Electron Microscopy. Students and Advisors should search the online MSU Guide to Academic Programs and Description of Courses to identify courses in which they can acquire the supplementary technical skills you need to make their research successful.

Transfer of Credits from Other Universities to MSU

New graduate students in Integrative Biology can transfer up to 9 credits' worth of graduate coursework to MSU when they arrive, by filling out a MSU Credit Evaluation Form for Graduate Programs. For example, if you have taken some graduate level courses elsewhere and you now want to use those courses to satisfy current requirements of your MSU degree program, you must fill out this form, have it signed by the relevant parties, and submit it to the Integrative Biology Graduate Program Director, Louise Mead, for consideration by the Graduate Affairs Committee.

Dual Major Degree Options

Many Integrative Biology students broaden their research perspectives by participating in one of the interdisciplinary programs and/or certificate programs available on campus. Students seeking dual majors take specific courses to meet program requirements. It is wise to complete as much coursework as possible in the first two years. Participants in these programs are drawn from multiple academic units. All dual major doctoral degrees must be approved by the Dean of the Graduate School. A request for the dual major must be submitted within one semester following its development and within the first two years of the student's enrollment at Michigan State University. Examples of programs that offer interdisciplinary dual majors are listed below:

- Ecology, Evolution, and Behavior Program
    - Study of ecology, evolutionary biology, and behavior cut across the boundaries imposed by traditional university departments. The EEB Program emphasizes the interdisciplinary nature of these fields and highlights their interfaces with genetics, developmental biology, and conservation biology.
- Environmental Science and Policy Program
    - The ESPP is a multidisciplinary program offering a dual Ph.D. degree with various host departments including Integrative Biology. Students are expected to

complete a sequence of four courses and pursue some aspect of environmental science or policy in their dissertation research.

- Neuroscience Program
    - Research areas currently represented in the Neuroscience program include autonomic nervous system function, neural development and plasticity, neural imaging, neural mechanisms of behavior, neurodegenerative and neuromuscular disease, neuroendocrinology, sensory systems, and motor systems.
- Cell and Molecular Biology Program
    - Research conducted within the Cell & Molecular Biology Program addresses a wide variety of biological questions with an equally diverse array of organisms. Common approaches unite the research programs of the participating faculty whether they are interested in herbicide resistance in crop plants, DNA replication in bacteria, or tumor development in humans.
- Genetics and Genomics Program
    - Currently the Genetics and Genomics Program includes research in microbial-, fungal-, plant-, insect-, and mammalian genetics.
- Environmental and Integrative Toxicological Sciences
    - Students interested in toxicology graduate education and research related to the harmful health effects of environmental or other chemicals can enroll in this multidisciplinary dual-major graduate program in Environmental and Integrative Toxicological Sciences (EITS).

The Role of the Major Professor

In most cases, you have come to the Department of Integrative Biology to work with a specific advisor. Your Major Professor will guide your research program and act as the Chairperson of the Guidance Committee. The Major Professor's responsibility is to mentor the student, provide guidance as needed, and help the student meet deadlines and requirements of the program. Initiation and successful completion of independent research requires early and continued advice and oversight. The advisor and student may want to consider developing an Individual Development Plan (IDP). Faculty also acknowledge the importance of being aware of student's needs based on their academic background, lived experiences, research activities, and short- and long- term professional goals.

The Role of the Student

It is the responsibility of each graduate student to make sure they are complying with the department regulations described in this guide and maintaining high standards of scholarship and ethical conduct. It is also the student's responsibility to keep the advisor up to date with their work. Designing the research project is an important part of the learning process. The student should request help from the advisor as needed, but otherwise research is your own responsibility. Students are expected to participate in department seminars and journal clubs to gain valuable experience in making oral presentations. All graduate students are expected to keep up with the current literature in their field. It is also the student's responsibility to

understand University, College, and Department policies as well as complete requirements in a timely fashion. Questions concerning the graduate program can be answered by the student's advisor, the Graduate Affairs Committee, the Graduate Program Director, or the Chairperson of the Department. Questions regarding regulations of the College of Natural Science may be directed to the Associate Dean for Graduate Studies.

Best Practices in Graduate Mentoring

The department guide was modified from Hund et al. 2018 and MSU Guidelines for Graduate Student Mentoring and Advising.

The role of the advisor is diverse and may include several areas of guidance, advising, support, and supervision. The advisor is a role model for students, helping them learn norms and ethics in academic behavior and performance at the levels of the department, university, and the broader field of study. The best mentors strive to (1) model how to engage in excellent scholarship, and (2) provide sponsorship, collaboration, supervision, and encouragement to build student skills and confidence as they progress through graduate school, and beyond.

Each advisor develops their own mentoring style based on personality, working style, and experience. While mentoring styles may vary, we encourage faculty to recognize that there are well defined, and empirically supported, tools, strategies, and approaches that work. These best practices can be learned, practiced, and adapted to improve the mentoring experience and outcomes for both the student and the mentor. In addition, it is important to recognize each student is unique and thus the style of mentoring that best suits a student's needs will vary. Students will also change over time, and adjustments in advising will be necessary as a student's progress leads to increasing responsibilities and independence. Students should recognize that their capacity and responsibilities will increase as they advance in graduate school and that an important role of their advisor is to push them and challenge them to help them build their abilities to meet their goals. Advisors should recognize that graduate students are doing and learning many things for the first time, they will make mistakes and will learn to be more efficient and effective with their work through time.

Start early in the mentoring process and establish the norms for communication, expectations, and requirements. This can be an important part of interviewing new graduate students, benefiting both faculty and student. When students decide to join a lab after acceptance, they should have a clear idea of the type of mentoring and support they will receive. We encourage faculty to develop their own written mentoring statement or contract that they discuss with prospective students and new graduate students. This conversation should include:

- Determining the best ways for the advisor and student to communicate with each other, and how frequently they will meet.
- Discussing what the expectations of the advisor for the student are in terms of performance (e.g., chapter/ manuscript preparation), and what the student expects from the advisor in terms of assistance and advice (e.g., help with a thesis topic, reading the literature, comments on drafts) in making progress toward their degree.

- It should also touch on the working styles and preferences of both the mentor and student and what type of mentoring or feedback works best for the particular student.
- The student's short and long-term goals and the role of the advisor in helping them to reach those goals.

It is important to regularly revisit this conversation and expectations with each student as needs will change over time. Faculty and students should recognize that openly discussing potential areas of conflict (e.g., authorship, financial support, differences in working styles, research expectations and timelines), early and often, before problems arise, is the best way to avoid conflict and maintain a good and productive mentoring relationship. We encourage advisors to facilitate these discussions with each of their students every semester, or at least once a year. Advisors and students should review together the requirements for obtaining the degree, including coursework, exams, teaching, and documents (thesis, dissertation). Establish a strategy for setting goals, evaluating progress, and identifying challenges on a regular basis (e.g., weekly or monthly). Both advisors and students should understand their rights and responsibilities:

- Professional Rights and Duties of Faculty Members
- Guidelines for Graduate School Mentoring
- Graduate Student Bill of Rights and Responsibilities
- IBIO Code of Ethics and Professional Conduct

Appendix 2. Best Practices: How to Enhance Mentoring and the Graduate Student Experience

Changing Advisors

The department seeks to create a culture where faculty take their agreement to advise students seriously and realize the important role of mentorship but acknowledge there are instances that arise that can also require a change in advisor, for example if the advisor leaves Michigan State University for another position or decides to no longer serve as the Advisor for a student or if the student wishes to change their Advisor. Any change should be discussed with the Graduate Program Director or Chair of the Department. In cases where a faculty leaves the university or decides they can no longer mentor the student; the department recognizes this can place undue hardship on the graduate student who may not be able to move with the advisor or may need to find a new advisor. The department has a responsibility to its graduate students to ensure students are adequately supported. Graduate students and the department have invested resources in their graduate degree, and IBIO administration will facilitate necessary steps so as not to place undue hardship on the student's progress and well-being. The Department strongly supports the following:

- Any faculty member who is considering leaving MSU should notify current graduate students as soon as possible.
- Advisors who either intend to leave MSU or decide they can no longer support a student should reach out to the Graduate Program Director as soon as possible.
- The Graduate Program Director and Department Chair will work with the student and the advisor to facilitate transfer to a new advisor, ideally someone in the department who is

on student's committee, but because each situation is unique, other arrangements may need to be made.

- While every effort will be made to identify a new advisor, an interim advisor may be appointed, in which case it is expected that someone on the committee will serve in the position until the student has identified another major advisor. In these situations, individual committee members can also agree to be the "point person" for specific projects they feel they can help on.
- In the case that a new advisor is not immediately identified, the graduate student will continue to be supported by the department, most likely by a Graduate Teaching Assistant appointment, assuming they are still within the guaranteed funding time indicated in the student's offer letter.
- If an alternate tenure track IBIO faculty member cannot be identified as a new advisor, alternative members (e.g. faculty from other departments, fixed-term faculty, academic specialists) should be allowed to advise the student, at least on a temporary basis. Any such interim appointments will be approved of by both the Graduate Program Director and the Chair of the Department.

The MSU Graduate School provides additional information on Graduate Student Rights and Responsibilities

Hund, AK, Churchill, AC, Faist, AM, et al. Transforming mentorship in STEM by training scientists to be better leaders. Ecol Evol. 2018; 8: 9962–9974. https://doi.org/10.1002/ece3.4527

The Guidance Committee – see GSRR 2.4.2.1

The role of the Guidance Committee is to provide the student with direction regarding courses to take, help direct the student's research and serve as examiners in the required examination(s). Ideally, committee members should be diverse enough to be able to provide guidance on all aspects of a student's project. It is the student's job to study the research interests and areas of expertise of current faculty and start interacting with potential committee members early in the second semester of the first year. Students should be aware that faculty are not obligated to meet with students or participate in committee meetings or defenses during the summer but may elect to do so at their discretion.

The Guidance Committee should be selected ideally by the end of the first year, and no later than the end of the first semester of the second year. The student will then submit their committee members to GradPlan for approval. Committee Composition for Master of Science candidates consist of the Advisor, at least one additional member of the Department of Integrative Biology, and at least one additional MSU faculty member from outside the Integrative Biology Department. Committee Composition for Doctoral Degrees consists of the Advisor and at least three other faculty members. At least two (including the Advisor) must be from within

the Department of Integrative Biology and one faculty member must be from outside the Department of Integrative Biology. At least two tenure-stream Integrative Biology faculty members must serve on every Ph.D. Guidance Committee. In general, membership on committees is restricted to regular MSU faculty with tenure-stream appointments at the ranks of Instructor, Assistant Professor, Associate Professor, or Professor. Fixed term faculty and academic specialists within MSU and individuals from other universities and institutions are welcome to serve as committee members following approval from the Graduate School. Please see the Graduate Program Director for additional instructions for how to add non-MSU individuals to the guidance committee.

Annual Meeting with Guidance Committee

Graduate school regulations require (see GSRR 2.4.8) that each graduate student be evaluated once each year. Therefore, each faculty member in Integrative Biology shall ensure that all their Ph.D. students meet at least once annually with the entire guidance committee. If a faculty is on sabbatical the faculty member should plan to continue to advise the student during their sabbatical and should create a plan for how they intend to advise while on sabbatical (i.e. identifying availability, methods of communication. Etc.). Specifics of the plan should be communicated by the faculty advisor to their advisees, the student's committee members, and the Graduate Program Director before the faculty members begins their sabbatical. The only exceptions to this rule shall be: if a student has not yet completed the formation of his/her guidance committee in year one or if the student is conducting research far from the MSU campus, in which case the student should make every attempt to set up a virtual meeting with the entire committee. At each annual meeting, the student shall submit formal written and oral reports summarizing his/her research progress to date in a scholarly fashion and lay out his/her research plans for the following year. The student then completes the student portion of the Annual Progress Report, meets with the advisor to discuss progress, and submits the Annual Progress Report to the Graduate Program Director. If the student has not formed their committee, the Advisor will meet with the student and complete the evaluation (e.g. Annual Progress Report).

Comprehensive Exam (revised November 2024)

Comprehensive Exam [1]

Note: Upon Approval, Graduate Student Cohort 2025 will use this new comprehensive exam format. Graduate students admitted prior to 2025 may choose to use the format previously described on the IBIO website, an archived version is here. The decision must be made together by the primary faculty mentor and the graduate student.

Purpose:

The comprehensive examination is required for doctoral candidates only.

The objectives of the comprehensive exam is for students to (1) Describe the intellectual scaffolding for their work and current state-of-the-art in their chosen area of specialization, as defined by the current literature in that field, (2) Demonstrate general competence in the broad area of their research, and their ability to integrate factual information and training techniques learned through coursework and seminars, as related to their research, (3) Demonstrate that they have identified an important and tractable research problem of sufficient scope, and that they have a substantial command of the relevant literature, and (4) Demonstrate the capability to communicate scientific goals, methods, and results in both the oral and written formats and (5) demonstrate understanding of the scientific process. To evaluate whether these objectives have been achieved, students will (1) create a written dissertation proposal, (2) publicly present this dissertation proposal, and (3) complete an oral exam based on the dissertation proposal with their advisory committee.

Timeline

According to MSU Graduate School rules, students must be registered during the semester in which the exam is administered. To remain in good academic standing, Ph.D. students should complete the comprehensive exam **before** the end of their **5th** semester in the program (not inclusive of Summer).

1. The student should meet with their advisory committee to select a date and time for their comprehensive exam **at least 8 weeks before the desired date**. Note that the public presentation and oral examination must be held on the same date.
2. The student contacts the Academic Program Coordinator **at least one month** before the scheduled date and completes necessary forms.
3. The Academic Program Coordinator will notify the department **two weeks prior** to the date, time and location of the public portion of the exam.
4. Student must send a completed written proposal to the guidance committee **at least two weeks prior** to the formal proposal presentation and oral defense.
5. The graduate committee members must complete a departmental evaluation rubric. Following the exam, the rubric and outcomes of examination are shared with the student and director of graduate studies.
6. Extensions to this timeline will be considered for extenuating circumstances (e.g. medical/family leave of student, advisor or committee member) if submitted in writing to the Graduate Affairs Committee prior to the deadline for comprehensive exams described above.

Written Proposal Guidelines

1. The written proposal should be **no more than** 15 written pages (excluding figures and references). The format of the proposal and citations are recommended by the graduate advisory committee. All written proposals must consist of the following elements:

a. A literature survey describing the current state of their chosen area of specialization.
b. Background and discussion of significance/importance of the proposed research.
c. Clearly stated aims/objectives/goals/hypotheses.
d. Discussion of the research they have done so far, including the experimental design, which should form the beginning of their dissertation research.
e. Proposal for the rest of their dissertation research, including:
    i. Scientific motivation and significance of this work.
    ii. Specific aims of the project that will be undertaken.
    iii. Timeline for completion of this work.

2. The written proposal should adhere to MSU Student Rights and Responsibilities policy on protection of scholarship – violations of this policy are subject to exam failure.

For exams conducted virtually or hybrid, separate links should be created for the seminar and the closed oral questioning. Both should be password-protected.

Public Presentation

1. The student will make a public research seminar style presentation of elements a-e of their written proposal, **not to exceed** 45 minutes in length.
2. Immediately following the presentation, a public question and answer period, moderated by the graduate committee chairperson should be **no longer than 15 minutes** long. Members of the audience are allowed to ask questions; the Guidance Committee should remain silent during this period.
3. The public presentation should be followed by a **15-minute break** before the oral exam.

Oral Exam

The oral examination is not public and consists of the graduate advisory committee and the student. The Committee is expected to provide constructive feedback about all aspects of the student's written and oral presentations in the form of the IBIO Comprehensive Exam Rubric.

1. At the start of the oral part of the exam, the graduate advisory committee meets without the student to discuss the following:
    a. Brief overview to discuss how the exam will proceed.
    b. The graduate advisory committee chair asks committee members if there are any questions or concerns about the written portion of the exam or public presentation
2. Questioning proceeds with the student in a round table format.
    a. All members of the committee are given equal opportunities to question the student over 2-3 rounds of questioning.
    b. One round of questioning by a committee member, including interjections, should generally last for 15-20 minutes.
    c. After the first round of questioning by committee members, members will be given the opportunity to ask a second round of questions as needed. In some cases, a third round of questioning may be requested by a committee member.

3. Questions should arise directly from the written proposal and oral seminar and may stem/follow up from prior questions asked by audience members or other committee members.
    a. Questions can deviate from immediate subject matter but should remain generally applicable to the topic of the student's proposal and seminar.
    b. If necessary, during a student's response, the major advisor may clarify the question for the student in instances when the student misinterprets the question in the context of their work. However, the committee should agree on this aspect of questioning before the closed meeting.
4. At the conclusion of questioning, the graduate advisory committee will meet without the student to complete their evaluation rubric and discuss the student's performance. The committee votes on performance in the exam, with each member submitting a Pass/Conditional Pass/ Fail outcome (see below) on each of the three components (Written, Public Presentation, Oral Exam).
5. The graduate advisory committee meets with the student to summarize an oral summary outcome of the examination.
6. The graduate advisory committee provides the Integrative Biology Comprehensive Examination Rubrics to the Graduate Director and to the student no more than one week following the examination.

Examination Outcomes

To advance to candidacy for a Ph.D. in integrative biology students must successfully pass all three components of their comprehensive exam. Potential outcomes for each component are as follows:

1. **Pass**: Students must be recommended for advancement to the degree by a positive vote by at least three-fourths of voting members, with no more than one dissenting vote from among the MSU regular faculty members on the committee.
2. **Conditional Pass**: Outcome may include a particular course or attention to material that the student needs to focus on to augment their background.
3. **Fail**: The student has significant deficiencies in more than one of the outcomes described above.

Students must be given constructive feedback on their performance using the completed Integrative Biology Comprehensive Examination Rubric as a guide for this discussion. In addition, the graduate advisory committee members are encouraged to provide informal feedback as they see fit. If a fail~~ure~~ or conditional pass decision is reached by the committee on any of the three components, the committee will give specific recommendations for the remediation in writing to the students and the Graduate Director in writing. The examined student will have one attempt to rectify these specific recommendations in a period no longer than three months. Failure of the examination a second time will result in dismissal from the Ph.D. program. The date the exam is passed is the date on which the student officially passed the comprehensive exam and advances to degree candidacy.

[1] Revised November 2024

The Thesis Proposal (Master of Science Plan A Candidates) or Dissertation Proposal (Doctoral Candidates)

The thesis/dissertation proposal is the document in which you describe to your guidance committee what you intend to accomplish in your thesis research. It should be clear what study, or studies will be conducted in each chapter of the thesis, and whether each component of the proposed work represents descriptive or explanatory science. Your committee will want to see a literature review in the introductory section of the proposal; here you should explain why the phenomenon under study in your thesis is of interest, and what is already known about the phenomenon from prior work by others. The last section of the introductory section should make clear your own goals in relation to elucidating the phenomenon of interest. In each chapter in which you propose to conduct explanatory science, you should make clear what natural phenomenon you intend to explain, and clearly enumerate the hypotheses you plan to test, what your independent and dependent variables will be, and how exactly you will determine whether or not each hypothesis is supported by your data. It is often useful to include simple scatterplots or histograms (complete with careful axis labels, etc.) presenting alternative hypothetical results that would support or falsify each hypothesis. The thesis/dissertation proposal must be approved by the guidance committee of every Ph.D. candidate by the end of the third year of graduate study.

The Thesis (Master of Science Plan A Candidates) or Dissertation (Doctoral Candidates)

Each student working toward a Plan A Master's or Doctoral Degree must conduct original research to be written up and submitted in the form of a thesis/dissertation. In most cases, each chapter of the thesis/dissertation will represent roughly the content of an article to be submitted for publication in a top professional journal. The research conducted for the thesis/dissertation is under the guidance of the Major Professor and must be acceptable to the Guidance Committee. All doctoral students must register and pay for a minimum of 24 credits of doctoral thesis/dissertation research (with a maximum of no more than 36 doctoral dissertation credits). It is the policy of Michigan State University to permit and facilitate thesis/dissertation research by students from developing nations in their home countries, whenever feasible.

Each student should give all of his/he/their guidance committee members opportunities to provide feedback on each dissertation chapter before it is submitted to a professional journal and subjected to outside review. If guidance committee members do not provide feedback to the student on such work within three weeks, then the student may proceed to submit the manuscript in question for publication. The students' obligation to the members of his/her guidance committee is satisfied if all committee members have had these opportunities.

The thesis/dissertation must be completed according to regulations prescribed in the Formatting Guide from MSU's Graduate School.

Style and Form

The style and form of the thesis/dissertation shall be determined by the Major Professor and Guidance Committee in accordance with The Formatting Guide.
Review of Thesis/Dissertation Draft by the Major Professor & the Guidance Committee
The final draft is first presented to the Major Professor for review. If and only if the Major Professor considers it to be in reasonable form for broader distribution, the thesis/dissertation is submitted to each member of the Guidance Committee for review. Copies are to be presented to all committee members, and the committee members must be given at least one week (preferably longer) to review it.

Publication of the Dissertation
Electronic dissertations are submitted to ProQuest, a database of dissertations and theses. Each dissertation is reviewed by a Michigan State University administrator for possible revisions before it is officially accepted and delivered to ProQuest for final publishing. All MSU dissertations and theses can then be accessed through the MSU library catalog or through the ProQuest database from the MSU library website.
Publication by ProQuest does not preclude publication of the dissertation in whole or in part in a journal or as a monograph. An extra fee is charged if the dissertation is to be copyrighted. ProQuest provides an Open Access Publishing Option as an alternative to the traditional publishing option available to our students. The Open Access option gives ProQuest the authorization to make the electronic version of the document accessible to all via the internet, including the selling of the document by commercial retailers and the accessibility to the work via search engines. In addition, when submitting an electronic thesis or dissertation to ProQuest, a student now has the option to open the document to searches using Google, Google Scholar, and Google Books. The option to block such searches continues to be available.

Who Gets Copies of Your Thesis/Dissertation?
After the revisions to the thesis/dissertation have been approved, the student should provide the Major Professor and committee members with electronic PDF copies of the thesis. If the Major Professor requests a hardbound copy in addition to the electronic copy, the student should provide it.
Embargos of Theses and Dissertations
Requests for embargoes are restricted to situations involving potential patents. The embargo period is restricted to six months and the holding of the document of now done by ProQuest after the electronic thesis/dissertation is submitted after the approval of the Graduate School.

Where Can I Find a Recent Thesis/Dissertation?
Theses/dissertations accepted by the Department of Integrative Biology in recent years may be found in the glass-front cabinets in Room 203B Natural Science Building.

The Final Oral Examination (Thesis/Dissertation Defense)
The final master's or doctoral examination is the culmination of a student's graduate education and training and reflects not only on the accomplishments of the graduate student but also on the quality of our graduate program. A graduate student must be enrolled for the semester

during which the final examination is taken. We anticipate that the policies and procedures described in this section will ensure the maintenance of expected professional standards in the preparation of the written documents and in the oral defense of the thesis/dissertation. An approved thesis/dissertation that is accepted by the department and the Graduate School becomes a single-author publication and contributes to the body of knowledge of the discipline. The Final Oral Examination will be held no later than the ninth Friday of the student's final semester. It will consist of a presentation of the findings in the student's thesis/dissertation plus a defense of the thesis. That is, the student should be prepared to answer even the most challenging questions posed in response to his/her presentation of the thesis/dissertation research. These questions may come from members of the guidance committee or other members of the audience. The oral presentation will be open to all interested persons, including all faculty members, and announced to the entire department via email several weeks in advance. As soon as the final rough draft of the thesis/dissertation has been judged to be satisfactory by the guidance committee members, the student shall schedule the final oral examination, which, for Plan A M.S. and Ph.D. candidates, includes the departmental seminar on the research described above. This examination should not be scheduled until committee reservations and concerns about the thesis/dissertation have been alleviated.
To ensure fairness in the examination procedure and maintenance of academic standards, the Dean of the College of Natural Sciences or the Chairperson of Integrative Biology may appoint an outside member to the examining committee. The outside member of the committee may read and critique the thesis/dissertation, may participate in the oral part of the exam, and may submit a report to the Dean or the Chair assessing the student's performance in the context of the examination.

To meet graduate school deadlines, the candidate for the Master of Science (Plan A) or Doctoral Degree should submit a copy of the thesis/dissertation to each member of the Guidance Committee not later than the seventh Friday of his/her final semester, and at least two weeks prior to the Final Oral Examination. Notice of the oral presentation and defense of the thesis or dissertation must be distributed via email at least two weeks in advance to all faculty and graduate students in Integrative Biology. The committee may take by unanimous agreement whatever action it deems just. The Record of Completion of Requirements for the Advanced Degree form will be completed and taken to the Graduate Program Coordinator immediately after the examination. The Graduate Program Coordinator will then forward the Record to the Chairperson of the Department. The student must receive a unanimous passing grade by the Guidance Committee at the conclusion of the Final Oral Examination to be recommended for a degree. If the student fails this examination, one additional examination may be given. That is, if one or more members of the committee fails to approve the student's dissertation or performance during the first final oral examination, the student will likely be asked to make further revisions in the dissertation and/or further demonstrate that he/she is knowledgeable in the area(s) identified by committee members as being weak. The committee may vote to allow the student's major professor to give final approval for these changes, or they may ask to see the revised thesis again themselves and then meet again with the student to discuss it (i.e., hold a second final oral examination).

When the student has passed the oral examination in defense of the thesis/dissertation, the student should incorporate any recommended changes and corrections into the thesis and submit the required final document to the Graduate School office (via ProQuest, as described above), after receiving approval of these corrections from the Major Professor.

The thesis/dissertation must be completed according to regulations prescribed in the **Formatting Guide** from MSU's Graduate School and meet the Electronic Dissertation and Thesis (EDT) deadlines for a particular semester. Electronic dissertations are submitted to **ProQuest**, a database of dissertations and theses. Each dissertation is reviewed by a Michigan State University administrator for possible revisions before it is officially accepted and delivered to ProQuest for final publishing.

Policy Note: See Academic Programs policy on doctoral examinations.

Department and University Policies: Academic and Professional Performance

Graduate students have a right to periodic evaluation of their academic progress, performance and professional potential. Therefore, the Guidance Committee shall review the performance of the graduate student once a year, in a meeting that the student should take responsibility to organize well in advance. To ensure a comprehensive assessment of the student's performance as well as the student's satisfaction in the graduate program, in addition to review by the Guidance Committee and a faculty advisor, the student's progress will also be reviewed annually by the Graduate Programs Director.

Academic Standards and Standing (GSSR 2.4.9)

Faculty and Staff in the Department of Integrative Biology are sincerely invested in having all MSU graduate students excel. Students are expected to maintain a grade point average above 3.0. However, we recognize that not all students possess all the qualifications or commitment necessary to carry on doctoral work. The Advisor and Guidance Committee are responsible for making judgments concerning the student's suitability to complete a doctoral program of study. While the department, advisor, and Graduate Program Director will attempt to identify the best path for a struggling student, a student who is unable to meet the standards of quality set by may be asked to leave. Any of the following situations may lead to dismissal: receiving a grade of less than 3.0 in three 3-credit courses during the student's tenure as a graduate student; failure to pass the comprehensive examination after two attempts; violating time limitations specified for the relevant degree programs. To facilitate making such decisions, the committee is encouraged to consult the Graduate Affairs Committee, Graduate Program Director, and Department Chairperson. If a majority of the Guidance Committee decides the student cannot meet the requirements to complete their degree, the student may be asked to withdraw or be dismissed according to the procedures as defined in the Graduate Student Rights and Responsibilities (GSSR 2.4.9).

Deferred (DF) Grades

The required work must be completed, and a grade reported within 6 months with the option of a single six-month extension. If the required work is not completed within the time limit, the DF will become U-Unfinished and will be changed to DF/U under the numerical and Pass-No Grade (P-N) grading systems, and to DF/NC under the Credit-No Credit (CR-NC) system. This rule does not apply to graduate theses or dissertation work. Occurrence of a deferred (DF) grade will **not** result in loss of good academic standing. Occurrence of an unfinished (U) grade will result in loss of good academic standing.

Graduate Student Attendance at Scientific Meetings

The experience of presenting research results and interacting with colleagues at scientific meetings is recognized as extremely important for graduate students. The Department strongly encourages graduate students to attend and present papers at these meetings. Financial assistance for participation in scientific conferences is provided by the Graduate School and the College and Department, but students must apply through the prescribed instructions. Travel advances are available, or reimbursement can be obtained after the meeting, but you must provide receipts for everything to be reimbursed or to pay back travel advances. No expenses involving alcoholic beverages can be reimbursed, so while traveling, it's a good idea to have your server make out separate checks for alcohol and food. You must get appropriate travel authorization from the University and Department. You can request such approval on your own through Concur. Janet Hershberger must be informed in advance of all travel to meetings and all other travel on university business. If you have difficulty requesting your own approval through the system, reach out to Janet.

Memberships in Professional Societies

In addition to presenting at annual professional society conferences graduate students should are encouraged to join those societies whose activities enhance their broad career objectives or their specialized interests. Societies of interest to many Integrative Biology students include the Ecological Society of America (ESA), the Animal Behavior Society (ABS), the Society for Neuroscience, the International Society for Behavioral Ecology (ISBE), the American Society of Naturalists (ASN), Society for the Study of Evolution, and other specialized societies.

Access to Documents in the Student's Academic File

The Graduate Program Coordinator maintains for each graduate student a file that contains the following documents: Most of the documents kept in this file, like birth certificates or passports, cannot be tampered with (e.g., have material on them whited out, etc.). Students have the right to review all materials in the academic file except letters of recommendation submitted on behalf of the student for which she/he has waived viewing rights. To view these documents, the student should make an appointment with the Graduate Program Coordinator.

The Graduate Program Coordinator also maintains a separate personnel file for each grad student who serves as a teaching assistant for the Department, as required by the GEU/MSU

contract. This file contains evaluations of teaching performance submitted by faculty supervisors. The graduate student can view the materials in this file three times annually, as described in the GEU contract. See GSRR 3.2.3

Employee Leave Time

Several changes were made to Article 18 in the 2015-2019 version of the Graduate Employees Union contract with the University. Article 18 now provides for possible medical disputes where GTAs may not be able to perform their employment responsibilities due to physical or mental health conditions. In addition, adoption and parental leave time provide pay during the first work week of applicable leave. Finally, the language on jury duty has been refined regarding payment for lost time and reporting back to work after jury duty.

Medical Leave

In the event an employee is unable to meet employment obligations because of illness, injury, pregnancy, or childbirth, the employee notifies the appropriate immediate supervisor (or employing unit designee) as promptly as possible so that arrangements for the absence can be made by the employing unit. During a medical leave, the employing unit shall adjust (reduce, waive or reschedule) the employee's duties as those duties and his/her physical circumstances reasonably dictate. If total absence from duties becomes necessary and the employee is still enrolled, the employing unit shall maintain the stipend of the appointment provided for a period of two (2) months or to the end of the appointment period, whichever occurs first. Additional unpaid leave may be arranged on an ad hoc basis. The employee shall have the right to return to employment, provided there is no medical dispute, within the dates of the current appointment, when he/she can resume duties.

Adoption and Parental Leave

An employee who adopts a child shall be entitled to adoption leave of up to two (2) months, the first week of which will be paid by the employer and the balance which will be unpaid, to commence on or before the date of adoption as determined by the employee. An employee who becomes a parent by birth and is not otherwise covered by section one of this article, shall be entitled to parental leave of up to two (2) months, the first week of which will be paid by the employer and the balance which will be unpaid to commence on or before the date of birth as determined by the employee. Additional unpaid leave may be arranged on an ad hoc basis. To be eligible for adoption leave or parental leave it must be completed within six (6) weeks of the birth or adoption of a child under the age of six (6), not extend beyond the Employee's previously scheduled appointment end date; and be requested in writing, where possible, no less than four (4) weeks prior to the scheduled start of the leave

Grief Absence Policy

For master's (Plan A), master's (Plan B) with research responsibilities, and doctoral students, it is the responsibility of the student to:

- Notify their Advisor and faculty of the courses in which they are enrolled of the need for a grief absence in a timely manner, but no later than one week from the student's initial knowledge of the situation.
- Provide appropriate verification of the grief absence as specified by the Advisor and faculty.
- Complete all missed work as determined in consultation with the Advisor and faculty.

It is the responsibility of the Advisor to:

- Determine with the student the expected period of absence – it is expected that some bereavement processes may be more extensive than others depending on individual circumstances
- Receive verification of the authenticity of a grief absence request upon the student's return.
- Make reasonable accommodation so that the student is not penalized due to a verified grief absence.

If employed as a GRA or GTA, the graduate student must also notify their employer. Both employer and student will swiftly communicate to determine how the student's responsibilities will be covered during their absence. Graduate teaching assistants should refer to the bereavement policy in the MSU GEU. Students who believe their rights under this policy have been violated should contact the University Ombudsperson.

Departmental Policies: Integrity and Safety in Research and Creative Activities

We expect our graduate students to adhere to the highest standards of professional conduct in science. Integrity in research is based on sound disciplinary practices and commitment to basic values such as fairness, equity, honesty, and respect. These are all described in more detail in the University's Research Integrity Requirements.

Integrity in research is based on sound disciplinary practices and commitment to basic values such as fairness, equity, honesty, and respect. We expect students will learn to value professional integrity and high standards of ethical behavior through interaction with their faculty advisor and other members of the faculty. We require that all graduate students in Integrative Biology take a one-credit class (IBIO 801) Professional Development in Integrative Biology, in which the subject of research integrity is treated in depth. Read the Integrative Biology Department's policy regarding the Responsible and Ethical Conduct of Research (RECR). All students are expected to complete mandatory RECR training, see individual degree requirements above and keep this updated in GradPlan. Students should also be aware of the following guidelines and policies:

- MSU Guidelines on Authorship
- MSU Institutional Data Policy

- MSU Procedures Concerning Allegations of Misconduct in Research and Creative Activities

Graduate students must complete the Office of Environmental Health and Safety Hazardous Waste Safety Training before courses in the first semester of their academic program. They must also complete a refresher course each year. Information on safety training and regulations can be found at http://www.ehs.msu.edu/. Further Safety Training may be required by the lab that the student does research in, the student should ask the faculty member in charge of the lab as to what additional safety training is required.

Graduate students at MSU should also familiarize themselves with the All-University Policy Regarding the Integrity of Scholarship and Grades. It is also appropriate for you to have ongoing discussions with your faculty advisor about integrity issues as they become relevant. Many situations are ambiguous, and actions can often be interpreted in several ways. Many behaviors can generate disagreements among well-meaning people. Often the only way to resolve these ambiguities is conversation and discussion with colleagues. If you have questions about ethical concerns, start by initiating a conversation with your faculty advisor. If this is not possible, there are other resources in the Department and the University to help you resolve these issues. Checking in with the Director of Graduate Programs or the Chairperson of the Department is a good place to start if you are unable to resolve problems with your faculty advisor. In addition, the MSU Graduate School regularly offers seminars and discussions on research ethics, resolving conflicts with your advisor, many of which serve to meet RECR requirements.

We expect our graduate students to adhere to the highest standards of professional conduct in science. The faculty believe that good professional practices should include honesty in all aspects of research, recognition of prior work, confidentiality in peer review, disclosure of potential conflicts of interest, compliance with requirements enumerated by MSU and funding agencies, protection of human and animal subjects in research, collegiality in scholarly interactions, and sharing of resources. These are all described in more detail in the University's Research Integrity Requirements. Violations of these policies can be grounds for dismissal from the graduate program based on research misconduct, violations of professional standards, and dishonesty with respect to grades, academic records, or scholarship (GSRR 2.4.9). See MSUs Integrity of Scholarship and Grades policy, GSSR 8.1.2.

Permits and Approvals

Graduate students are responsible for obtaining any necessary permits and/or approvals before initiating any research projects requiring them. Check with your Advisor to determine which approvals and/or permits may be required for your research. All the relevant approvals must be obtained prior to beginning the research in question. Furthermore, you will not be allowed to file your thesis/dissertation at the Graduate School when you want to graduate unless all relevant approvals have been obtained earlier!

- Any work involving vertebrate animals, including field studies, requires approval by the MSU Institutional Animal Care & Use Committee (IACUC).

- Any work involving Human Subjects, including answering written and oral surveys, requires approval by the MSU Human Research Protection Program (HRPP).
- Any work with recombinant DNA requires approval by the MSU University Biological Safety Committee.
- Federal USDA (APHIS = Animal and Plant Health Inspection Service) permits are required for shipping live animals and some soils between states. Apply via Michigan Department of Agriculture.
- Importing animals (dead or alive) and many animal products into the U.S. requires a Federal Fish and Wildlife Service permit.

Permits are usually needed for live-trapping of vertebrates, for example, for mark-recapture studies on National Forest lands. Requirements vary from State to State. Do not plan to import animal tissues or specimens from foreign countries without checking the permit requirements for both export and import, as both sets of permits are likely to be required.

Safety

Your safety and the safety of those working around you are essential. You must be aware of the proper and safe use of the equipment and the proper and safe use and disposal of chemicals and other biological or radioactive materials that you use. Environmental Health and Safety (EHS), formerly the Office of Radiation, Chemical and Biological Safety (ORCBS), has numerous online training modules that must be completed by university personnel engaged in potentially hazardous work. Most EHS training needs to be updated once/per year. You will be asked by EHS to take annual online refresher courses if your work involves the use of live animals, radioisotopes, or storage/disposal of hazardous chemicals. These measures are required by the relevant regulatory agencies at the national level. In addition to representing a potential safety concern, failure to take the appropriate training courses may result in heavy fines for MSU (e.g., by the Nuclear Regulatory Commission, etc.). This will make your advisor very unpopular with MSU administrators. It is extremely important for you to follow all campus safety rules. General safety information and schedules of various safety courses can be found at the Environmental Health & Safety (EHS) website.

Mandatory Training on Relationship Violence and Sexual Misconduct Policy

All GTAs and GRAs must complete the online training about the Relationship Violence and Sexual Misconduct Policy. To Access the training, log in to the ORA training website. Click "Register," "Complete Registration," and then "Launch" to begin the Relationship Violence and Sexual Misconduct (RVSM) Policy - Faculty, Staff Training. (If it indicates that you have already registered, use "In Progress Training", then "Launch."). You will want to reserve approximately 30 minutes to complete all assignments. If you need assistance, contact the Helpdesk at 517-884-4600 or train@ora.msu.edu.

Student Conduct and Conflict Resolution

We expect our faculty and graduate students to adhere to the highest standards of professional conduct in science. Good professional practices should include all the following: honesty in proposing, performing and reporting research, recognition of prior work, confidentiality in peer review, disclosure of potential conflicts of interest, compliance with requirements enumerated by MSU and funding agencies, protection of human and animal subjects in research, collegiality in scholarly interactions, and sharing of resources. Link to Integrity of Scholarship GSRR 8.1.2

The University has established a judicial structure and process for hearing and adjudicating alleged violations of recognized graduate student rights and responsibilities (GSRR, Article 5). The first venue to resolve such conflicts informally or formally lies within Integrative Biology. Because the faculty advisor-graduate student relationship is deemed so important, special attention will be given to the resolution of conflicts between a graduate student and their faculty advisor. If a conflict arises in a student's program, they should first consult with the Chairperson or Director of Graduate Programs about possible solutions. Such conflicts occasionally develop between a graduate student and their faculty mentor, or between two graduate students. Graduate students sometimes change mentors after they arrive here at MSU, due to shifting of the student's research interests, personality conflicts, or other variables. The new mentor must agree in writing to a request from the student to change labs before such a change can occur. Advisors on temporary leave shall provide the necessary guidance of advisees during their absence. The sponsor will initially guide the student's program and may by mutual agreement assist the student in locating a new Advisor.

Ethical Violations: We expect you to adhere to the ethical principles maintained throughout the university as you conduct your research, scholarship, and professional activities. If you violate these principles, you will face sanctions proportional to the gravity of your infraction. Disciplinary action for ethical violations can include dismissal from your graduate program. Because of the fundamental importance of ethical comportment, violators may not get a second chance. It is critically important for you to be aware of the ethical landscape as you travel through your graduate program. We encourage you to read the documents referenced above and to engage our faculty, and fellow students, in a discussion of ethics in science, before problems arise. It is often in these discussions that you will learn to avoid ethical problems.

If you are accused of inappropriate behavior, the University has established a judicial structure and process for hearing and adjudicating alleged violations. The first step in this process is informal and should begin with the two parties trying to resolve the problem in an appropriate way. If this fails, you should go to the Director of Graduate Programs or the Chairperson and enlist their help in resolving the problem. If the problem remains unresolved, students should examine the Hearing Board Procedures for Graduate Students in the Department of Integrative Biology. If all departmental resources for resolving the problem have been exhausted, you can request a formal hearing from the College of Natural Science Review Board. To read more about the university's judicial structure, please see Spartan Experiences Integrity of Scholarship and Grades.

These same procedures can be used to resolve conflicts between faculty and graduate students that do not involve issues of academic integrity, including grievances. The Office of the Ombudsman are also available to help resolve conflicts with faculty or university administrators.

University-wide judicial procedures involving the rights and responsibilities of graduate students are spelled out in detail at Spartan Experience Adjudication of Cases Involving Graduate Student Rights and Responsibilities.

Graduate Student Academic Grievance Hearing Procedures for the Department of Integrative Biology

Each right of an individual places a reciprocal duty upon others: the duty to permit the individual to exercise the right. The student, as a member of the academic community, has both rights and duties. Within that community, the student's most essential right is the right to learn. The University has a duty to provide for the student those privileges, opportunities, and protections, which best promote the learning process in all its aspects. The student also has duties to other members of the academic community, the most important of which is to refrain from interference with those rights of others which are equally essential to the purposes and processes of the University. (GSRR Article 1.2)

The Michigan State University Student Rights and Responsibilities (SRR) and the Graduate Student Rights and Responsibilities (GSRR) documents establish the rights and responsibilities of MSU students and prescribe procedures to resolve allegations of violations of those rights through formal grievance hearings. In accordance with the SRR and the GSRR, the Department of Integrative Biology has established the following Hearing Board procedures for adjudicating graduate student academic grievances and complaints. (See GSRR 5.4.)

Jurisdiction of the Department of Integrative Biology Hearing Board:

- The Integrative Biology Hearing Board is set up to respond to any academic grievance grievances involving graduate students who allege violations of academic rights or seek to contest an allegation of academic misconduct (academic dishonesty, violations of professional standards or falsifying admission and academic records). (See GSRR 2.3 and 5.1.1.)
- Students may not request an academic grievance hearing based on an allegation of incompetent instruction. (See GSRR 2.2.2)
- The Department shall constitute a Hearing Board Pool by the end of the tenth week of the spring semester. The Hearing Board Pool should include four faculty and three graduate students. (See GSRR 5.1.2 and 5.1.5.). The Hearing Board members serve one-year terms with reappointment possible. The following procedures will be used in selecting the Pool. The Graduate Program Director will ask for volunteers from the faculty to serve in the Hearing Board Pool in the coming year. The members of the pool will be selected randomly if there are more faculty volunteers than required to fill the positions. The graduate student member of the Graduate Affairs Committee will ask for volunteers from the graduate students to serve in the Hearing Board Pool in the coming

year. The members of the pool will be selected randomly if more graduate students than required volunteer. The Chair of the Hearing Board shall be one of the faculty members, decided upon by the committee. The Chair shall vote only in the event of a tie. In addition to the Chair, the Hearing Board shall include an equal number of voting graduate students and faculty. (See GSRR 5.1.2 and 5.1.5.)

- The Department will train hearing board members about these procedures and the applicable sections of the GSRR. (See GSRR 5.1-4) Each member of the pool will receive a copy of these procedures when they first agree to serve.

Referral to the Hearing Board

- Graduate students should first consult with the Graduate Program Director of IBIO about resolving an allegation of a violation of student academic rights or an allegation of academic misconduct (academic dishonesty, violations of professional standards or falsifying admission and academic records). If the student's advisor is the Graduate Program Director and the issue involves the advisor, the student should consult with the IBIO Chair. After consulting with the instructor and appropriate unit administrator, graduate students who remain dissatisfied with their attempt to resolve the issue may request an academic grievance hearing. When appropriate, the Department Chair, in consultation with the Dean, may waive jurisdiction and refer the request for an initial hearing to the College Hearing Board. (See GSRR 5.3.6.2.)
- At any time in the grievance process, either party may consult with the University Ombudsperson. (See GSRR 5.3.2.)
- In cases of ambiguous jurisdiction, the Dean of The Graduate School will select the appropriate Hearing Board for cases involving graduate students. (See GSRR 5.3.5.)
- Generally, the deadline for submitting the written request for a hearing is the middle of the next semester in which the student is enrolled (including Summer). In cases in which a student seeks to contest an allegation of academic misconduct and the student's dean has called for an academic disciplinary hearing, the student has 10 class days to request an academic grievance to contest the allegation. (See GSRR 5.3.6.1 and 5.5.2.2.)
- If either the student (the complainant) or the respondent (usually, the instructor or an administrator) is absent from the university during that semester, or if other appropriate reasons emerge, the Hearing Board may grant an extension of this deadline. If the university no longer employs the respondent before the grievance hearing commences, the hearing may proceed. (See GSRR 5.4.9.)
- A written request for an academic grievance hearing must:
    - specify the specific bases for the grievance, including the alleged violation(s),
    - identify the individual against whom the grievance is filed (the respondent), and
    - state the desired redress.

Anonymous grievances will not be accepted. (See GSRR 5.1 and 5.3.6.)

Pre-Hearing Procedures

- After receiving a graduate student's written request for a hearing, the Chair of the Department will promptly refer the grievance to the Chair of the Hearing Board. (See GSRR 5.3.2, 5.4.3.)
- Within 5 class days, the Chair of the Hearing Board will:
    - Forward the request for a hearing to the respondent.
    - Send the names of the Hearing Board members to both parties and, to avoid conflicts of interest between the two parties and the Hearing Board members, request written challenges, if any, within 3 class days of this notification.
    - Rule promptly on any challenges, impanel a Hearing Board and update everyone on any changes to the Hearing Board. If the Chair of the Hearing Board is the subject of a challenge, the challenge shall be filed with the Dean of the College, or designee. (See GSRR 5.1.7.)
    - Send the Hearing Board members a copy of the request for a hearing and the written response and send all parties a copy of these procedures.
- Within 5 class days of being established, the Hearing Board shall review the request, and, after considering all requested and submitted information:
    - Accept the request, in full or in part, and promptly schedule a hearing.
    - Reject the request and provide a written explanation to appropriate parties; e.g., lack of jurisdiction. (The student may appeal this decision.)
    - The GSRR allows the hearing board to invite the two parties to meet with the Hearing Board in an informal session to try to resolve the matter. Such a meeting does not preclude a later hearing. However, by the time a grievance is requested all informal methods of conflict resolution should have been exhausted so this option is rarely used. (See GSRR 5.4.6.)
- If the Hearing Board calls for a hearing, the Chair of the Hearing Board shall promptly negotiate a hearing date, schedule an additional meeting only for the Hearing Board should additional deliberations on the findings become necessary, and request a written response to the grievance from the respondent.
- At least 5 class days before the scheduled hearing, the Chair of the Hearing Board shall notify the respondent and the complainant in writing of the:
    a. time, date, and place of the hearing;
    b. the names of the parties to the grievance;
    c. a copy of the hearing request and the respondent's reply; and
    d. the names of the Hearing Board members after any challenges. (See GSRR 5.4.7.)
- At least 3 class days before the scheduled hearing, the parties must notify the Chair of the Hearing Board the names of their witnesses and advisor, if any, and request permission for the advisor to have a voice at the hearing. The Chair may grant or deny this request. The Chair will promptly forward the names given by the complainant to the respondent and vice versa. (See GSRR 5.4.7.1.)
- The Chair of the Hearing Board may accept written statements from either party's witnesses at least 3 class days before the hearing. (See GSRR 5.4.9.)

- In unusual circumstances and in lieu of a personal appearance, either party may request permission to submit a written statement to the Hearing Board or request permission to participate in the hearing through an electronic communication channel. Written statements must be submitted to the Hearing Board at least 3 class days before the scheduled hearing. (See GSRR 5.4.9c.)
- Either party may request a postponement of the hearing. The Hearing Board may either grant or deny the request. (See GSRR 5.4.8.)
- At its discretion, the Hearing Board may set a reasonable time limit for each party to present its case, and the Chair of the Hearing Board must inform the parties of such a time limit in the written notification of the hearing.
- Hearings are closed unless the student requests an open hearing, which would be open to all members of the MSU community. The Hearing Board may close an open hearing to protect the confidentiality of information or to maintain order. (See GSRR 5.4.10.4.)
- Members of the Hearing Board are expected to respect the confidentiality of the hearing process. (See GSRR 5.4.10.4. and 5.4.11.)

The Hearing will proceed as follows:

Introductory remarks by the Chair of the Hearing Board: The Chair of the Hearing Board introduces hearing panel members, the complainant, the respondent, and advisors if any. The Chair reviews the hearing procedures, including announced time restraints for presentations by each party and the witnesses, and informs the parties if their advisors may have a voice in the hearings and if the proceedings are being recorded. Witnesses shall be excluded from the proceedings except when testifying. The Chair also explains:

  - In academic grievance hearings in which a graduate student alleges a violation of academic rights, the student bears the burden of proof.
  - In hearings in which a graduate student seeks to contest allegations of academic misconduct, the instructor bears the burden of proof.
  - All Hearing Board decisions must be reached by most of the Hearing Board, based on "clear and convincing evidence." (See GSRR 8.1.18.)
  - (See GSRR 5.4.10.1 and 8.1.18.) For various other definitions, see GSRR Article 8.)

If the complainant or respondent fails to appear in person or via an electronic channel at a scheduled hearing, the Hearing Board may either postpone the hearing or dismiss the case for demonstrated cause. (See GSRR 5.4.9a & GSRR 5.4.9-b). If the respondent is absent from the University during the semester of the grievance hearing or no longer employed by the University before the grievance procedure concludes, the hearing process may still proceed. (See GSRR 5.3.6.1.). To ensure orderly questioning, the Chair of the Hearing Board will recognize individuals before they speak. All parties have a right to speak without interruption. Each party has a right to question the other party and to rebut any oral or written statements submitted to the Hearing Board. (See GSRR 5.4.10.2.)

Presentation by the Complainant

The Chair recognizes the complainant to present without interruption any statements relevant to the complainant's case, including the redress sought. The Chair then recognizes questions directed at the complainant by the Hearing Board, the respondent and the respondent's advisor, if any. Presentation by the Complainant's Witnesses: The Chair recognizes the complainant's witnesses, if any, to present, without interruption, any statement directly relevant to the complainant's case. The Chair then recognizes questions directed at the witnesses by the Hearing Board, the respondent, the respondent's advisor, the complainant, and the complainant's advisor, if any. Presentation by the Respondent: The Chair recognizes the respondent to present without interruption any statements relevant to the respondent's case. The Chair then recognizes questions directed at the respondent by the Hearing Board, the complainant, and the complainant's advisor, if any.

Presentation by the Respondent's Witnesses: The Chair recognizes the respondent's witnesses, if any, to present, without interruption, any statement directly relevant to the respondent's case. The Chair then recognizes questions directed at the witnesses by the Hearing Board, the complainant, the complainant's advisor, the respondent, and the respondent's advisor, if any.

Rebuttal and Closing Statement by Complainant: The complainant refutes statements by the respondent, the respondent's witnesses and advisor, if any, and presents a final summary statement.

Rebuttal and Closing Statement by Respondent: The respondent refutes statements by the complainant, the complainant's witnesses and advisor, if any, and presents a final summary statement.

Final questions by the Hearing Board: The Hearing Board asks questions of any of the participants in the hearing.

Post-Hearing Procedures

Deliberation: After all evidence has been presented, with full opportunity for explanations, questions, and rebuttal, the Chair of the Hearing Board shall excuse all parties to the grievance and convene the Hearing Board to determine its findings in executive session. When possible, deliberations should take place directly following the hearing and/or at the previously scheduled follow-up meeting. (See Section IV.D above.)

Decision:
In grievance (non-disciplinary) hearings involving graduate students in which a majority of the Hearing Board finds, based on "clear and convincing evidence," that a violation of the student's academic rights has occurred, and that redress is possible, it shall recommend an appropriate remedy to the Department Chair. Upon receiving the Hearing Board's recommendation, the Department Chair shall implement an appropriate remedy, in consultation with the Hearing Board, within 3 class days. If the Hearing Board finds that no violation of academic rights has occurred, it shall inform the Chair. The Chair of the Hearing Board shall promptly forward copies of the final decision to parties and the University Ombudsperson. (See GSRR 5.4.11.)

In grievance (non-disciplinary) hearings involving graduate students in which the Hearing Board serves as the initial hearing body to adjudicate an allegation of academic dishonesty and, based on a "clear and convincing evidence," the Hearing Board finds for the student, the Hearing Board shall recommend to the Department Chair that the penalty grade be removed, the Academic Dishonesty Report be removed from the student's records and a "good faith judgment" of the student's academic performance in the course take place. If the Hearing Board finds for the instructor, the penalty grade shall stand and the Academic Dishonesty Report regarding the allegation will remain on file, pending an appeal, if any to the College Hearing Board within 5 class days of the Hearing Board's decision. If an academic disciplinary hearing is pending, and the Hearing Board decides for the instructor, the graduate student's disciplinary hearing before either the College Hearing Board or the Dean of The Graduate School would promptly follow, pending an appeal, if any, within 5 class days. (See GSRR 5.5.2.2, 5.4.12.3, and 5.5.2.2)

Written Report: The Chair of the Hearing Board shall prepare a written report of the Hearing Board’s findings, including recommended redress or sanctions for the complainant, if applicable, and forward a copy of the decision to the appropriate unit administrator within 3 class days of the hearing. The report shall indicate the rationale for the decision and the major elements of evidence or lack thereof that supports the Hearing Board's decision. The administrator, in consultation with the Hearing Board, shall then implement an appropriate remedy. The report also should inform the parties of the right to appeal within 5 class days following notice of the decision, or 5 class days if an academic disciplinary hearing is pending. The Chair shall forward copies of the Hearing Board’s report and the administrator’s redress, if applicable, to the parties involved, the responsible administrators, the University Ombudsperson and the Dean of The Graduate School. All recipients must respect the confidentiality of the report and of the hearing board's deliberations resulting in a decision. (See GSRR 5.4.12 and 5.5.2.2)

Appeal of the Hearing Board Decision

Either party may appeal a decision by the Hearing Board to the College Hearing Board for cases involving academic grievances alleging violations of student rights and alleged violations of regulations involving academic misconduct (academic dishonesty, professional standards or falsification of admission and academic records.) (See GSRR 5.4.12.)

All appeals must be in writing, signed and submitted to the Chair of the College Hearing Board within 5 class days following notification of the Hearing Board's decision. While under appeal, the original decision of the Hearing Board will be held in abeyance. (See GSRR 5.4.12, 5.4.12.2 and 5.4.12.3.). A request for an appeal of a Hearing Board decision to the College Hearing Board must allege, in sufficient particularity to justify a hearing that the initial Hearing Board failed to follow applicable procedures for adjudicating the hearing or that findings of the Hearing Board were not supported by the "clear and convincing evidence", an appeal can be made, (See GSRR 5.4.12.1, 5.4.12.2 and 5.4.12.4.)

Reconsideration

If new evidence should arise, either party may request the appropriate Hearing Board to reconsider the case within 30 days upon receipt of the hearing outcome. The written request for reconsideration is to be sent to the Chair of the Hearing Board, who shall promptly convene the Hearing Board to review the new material and render a decision at a new hearing. (See GSRR 5.4.13.)

File Copy

The Chair of the Department shall file a copy of these procedures with the Office of the Ombudsperson and with the Dean of The Graduate School. (See GSRR 5.4.1.)

Approved by Faculty April 12, 2016.

Administration, Governance, and Departmental Business Policies

Administration of the Department: Administrators and Committees

Integrative Biology is administered by the College of Natural Science. The Dean of this College, Eric Hegg is receptive to input from students and meets regularly with his Student Advisory Council. The Associate Deans for Undergraduate and Graduate Studies, Lynmarie Posey and Amy Ralston, also welcome student input. The office of the Associate Dean also handles recruiting fellowships, affairs relevant to the union of teaching assistants at MSU as these apply to the College, and several other areas of student life within the College.

The Graduate Affairs Committee

The Graduate Affairs Committee (GAC) oversees the Department's graduate program. It is composed of three faculty members and a graduate student member. The graduate students vote on matters of policy only. The GAC provides recommendations to the Director of Graduate Programs and the Chairperson of the Department. The Committee meets as necessary to discuss policy, new admissions, re-admissions, student financial support and other matters as they arise. The graduate student is a voting member on matters of policy.

Integrative Biology Support Staff

We in Integrative Biology are very lucky to have superb support staff. They are hard-working, good-natured, and extraordinarily competent. As part of your professional conduct in Integrative Biology, we expect you will treat the members of the office staff with the respect and consideration they deserve. When they send out requests for information, we consider it rude and irresponsible to ignore such requests, and in fact, failure to respond may result in at least short-term forfeiture of the financial support described in your letter of admission to the department. Astute graduate students quickly recognize that it is in their own best interests to treat the staff well. The members of the office staff and their assigned duties are listed below.

- Janet Hershberger: Secretary to the Chairperson (Phone: 432-9817)
    - See her if you need to schedule an appointment with the chair. Janet is responsible for travel requests and expense reports for travel. You must have a pre-approved travel request for any type of university travel. She also handles communication for the department.
- Gabrielle Whittaker: Business Manager in Integrative Biology (Phone: 432-2747)
    - She oversees TA appointments and works together with the Graduate Program Director to make teaching assignments each semester. Gabrielle is also responsible for grant and budget account administration and management of operations within the Integrative Biology office. She can answer virtually any question imaginable regarding policy within the Department of Integrative Biology.
- Katherine Terry: Graduate Program Coordinator (Phone: 355-4642)
    - She has many duties involving graduate students and their records within the Integrative Biology Department that have been referred to extensively throughout this Guide. Katherine maintains both Academic files for all graduate students, as well as Personnel files for those grad students who have served as Teaching Assistants for Integrative Biology. All the forms in the appendices to this Guide except those downloadable from Graduate School or Registrar websites can be obtained from Katherine.
- Caleb Hess: Communications (hesscale@msu.edu)
    - Please notify Caleb of news and achievements for the **departmental website**.
- Diane Goldammer: Department's Accountant (Phone: 353-9865)
    - Diane handles grant and discretionary funding for research, reconciles and balances grant and university account ledgers and also handles student payroll for the department.

Travel on University Business or in University Vehicles

You must complete a travel request in the Department office (with Janet Hershberger, in particular) before you travel, regardless of whether you will be reimbursed. Each trip out of state requires a new travel request, but one "travel throughout Michigan" request is good for all travel during the specified time period. You cannot be reimbursed for travel without first being authorized. A policy for travel in support of your research project is set by your Advisor. When filling out a travel request and/or expense report consult with Integrative Biology office staff. Consult with your Advisor regarding opportunities to present your research at regional, national, and international meetings.

Use of Departmental Resources

Reimbursement for Miscellaneous Expenditures

Occasionally, you may have to make out-of-pocket miscellaneous purchases in support of research activities. If you are eligible through reimbursement, provide the receipt and an

account number to the clerk/receptionist, in the Integrative Biology office, and a check will be mailed to you via the Department Office. Do not make purchases of items that you can get through **University Stores** or through **Open Orders**.

University Stores

MSU has its own on-campus network of University Stores. A **catalog of supplies available at Stores** is available online. Do not make any purchases without your Advisor's authorization. You must turn in all receipts to the clerk/receptionist in the Integrative Biology office. Other sites on campus to purchase supplies include the Biochemistry Research Store.

Open Orders

Some common items that cannot be purchased on campus can be purchased from a local merchant by obtaining an Open Order. Consult **University Services** for instructions on obtaining items through Open Orders. Return all receipts to the Integrative Biology office.

Procurement Cards

These are handled by the accountant.

Material Return Forms

Whenever items are sent off-campus via the postal system, UPS, etc., a Material Return Form is required that is made out by the clerk-receptionist in the Integrative Biology office. For example, you would fill out a Material Return Form if you wanted to send a piece of lab equipment away to be repaired off-campus.

Supervision of Student Employees

If you supervise student employees, it will be your responsibility to sign each student's timesheet before they turn it in. It will also be your responsibility to instruct them regarding safety and department business procedures. Diane Goldammer handles all records, turning in timesheets, etc., for all student employees in the department.

Key Policy

Within the Department of Integrative Biology, there is a $10 deposit for one or more keys. You will be reimbursed when all keys are turned in. There is a $5.00 per key charge to replace lost keys. You may request keys in the Integrative Biology office. Keys requested before noon on Wednesdays will be available for pick up on Thursday or after. Note that your research may require access to lab spaces outside of the Department of Integrative Biology facilities and that you should be in contact with the department overseeing that space to arrange access (via key, or ID, etc.). Policies across campus tend to be similar but not identical in all departments.

Graduate Stipends

Graduate teaching and research assistants' stipends are directly deposited into students' bank accounts every other Friday.

Reserving Rooms

The Department has two conference rooms available for your use, Room 203B (small) and 203C Natural Science. You can reserve these rooms in the Integrative Biology Office (Room 203 Natural Science) or by contacting Katherine Terry.

Graduate Student Web Access

Wireless internet access is available in the Natural Science building. Direct Ethernet access may be obtained through your academic advisor or at the various MSU libraries on campus.

IBIOGRAD Email List

To send an email message to all Integrative Biology graduate students, address the message to **ibiograd@list.msu.edu**. Everyone hates junk mail, so please limit these sorts of global communications to items you believe will be of potential interest to a large segment of the graduate student population within the Department. Communications on IBIOGRAD are considered departmental business and may be read by any member of the department (faculty and staff).

Governance: Graduate Student Representatives to Standing Committees

IBIO Graduate Student Organization Constitution

The following departmental, college, and university committees have grad student representatives from the Integrative Biology Department. If you are interested in serving on one of these committees, please inform the Director of Graduate Programs before the start of each fall semester so your name can be added to the annual ballot. Written or email ballots are cast in early September each year.

Graduate Affairs Committee (GAC)

The Graduate Affairs Committee reviews all applications for admission to the Integrative Biology Department and makes recommendations for admissions to the Department Chairperson. This committee also periodically reviews departmental policy regarding academic requirements for graduate students and makes recommendations for policy changes to the Integrative Biology faculty, who then vote on these recommendations.

Curriculum Committee

This committee monitors the Department's undergraduate programs and course requirements. This committee also periodically reviews departmental policy regarding academic requirements for undergraduate students and makes recommendations for policy changes to the Integrative Biology faculty, who vote on these recommendations.

Representative to Attend Integrative Biology Departmental Meetings

The Integrative Biology Department meets regularly to deal with departmental business. The grad rep attends these meetings and reports on significant developments to the other graduate students. Faculty meetings usually take place from 3:30-5 p.m. on the second Tuesday of each month during the academic year.

Representative to Council of Graduate Students (COGS)

The Council of Grad Students meets monthly to discuss policy decisions affecting all grad students within the university. This body has played a key role in obtaining improved TA health benefits from the administration, informing grad students about TA unionization issues, etc.

GEU Steward

This individual serves as a departmental liaison to the Graduate Employees Union (GEU). The steward communicates union news to the current TAs in Integrative Biology, communicates the concerns of Integrative Biology TAs to the GEU, and affects GEU policy decisions. A graduate student must currently be appointed as a Teaching Assistant in Integrative Biology to serve as Steward.

Work Related Policies

Graduate Assistantships

Some of our graduate students are supported by extramural pre-doctoral fellowships, but many are supported by graduate research or teaching assistantships (GRA or GTA). Assistantships are generally either "half time" (the usual level of support) or "quarter time" if funding is limited or other special circumstances exist. A “three-quarter time" appointment is also possible, but this usually only occurs for GRAs (not GTAs). Assistantships are guaranteed for three years for students in the Plan A M.S. Program, and five years for Ph.D. students. Annual renewal depends on the student making acceptable progress toward his/her degree, as determined by his/her Advisor and Guidance Committee. When funding is available, assistantships can extend beyond the initial period specified in the letter of acceptance into the Department if the student is making acceptable progress and GRA/GTA positions are available.

Graduate Research Assistantships (GRAs) are usually funded by a research grant from the Advisor. The objectives and methods of the grant describe the research required for the grant.

The student also designs and conducts more research to complete his/her degree program, consulting with the Advisor and Guidance Committee.

For a teaching assistantship, classes or laboratories to be taught or assisted in are designated when the assistantship is assigned. See the GEU/MSU contract for specific information on GTA obligations and rights. Generally, a "half time" teaching assistantship will involve 20 hours of work per week, on average, over the employment period (approximately 4.5 months during fall and spring semesters and 3 months during the summer semester) and will require assisting in two recitation or laboratory sections per semester. A "quarter-time" assistantship generally requires 10 hours' work per week, on average. Students on graduate assistantships automatically receive in-state tuition privileges, a 9-credit tuition waiver Fall and Spring (5 credit waiver Summer) and health coverage paid for by the University. Details of the health insurance policy are available at the **Human Resources website**.

Further information on current graduate student fringe benefits can be found on the **Human Resources website**.

Full-time status for doctoral students is defined as a minimum of 1 credit for those students who have successfully completed all comprehensive examinations and are actively engaged in dissertation research or are doing department-approved off-campus fieldwork related to the preparation of their dissertation

Levels of Assistantships Available in Integrative Biology

There are three levels of teaching assistantships in Integrative Biology, Level 1, Level 2, and Level 3. To be considered a Level 3 Assistant, the department requires a student to have passed comprehensive exams and 6 semesters of previous teaching at MSU or equivalent experience in another graduate program. Documentation can be provided to the current Graduate Program Director. See the **GEU/MSU contract** for more about teaching assistantship levels. See also the **Graduate Assistantship Information from the Graduate School**.

Taxation

Assistantships are taxed. This may mean careful budgeting on the part of the student. Some students have been audited by the IRS, so it is wise to retain all receipts (including tuition receipts).

Registration

Registration is computer based. Procedures and dates for enrolling will be found online or in the **Enrollment and Registration Catalog**. Be sure to check enrollment deadline dates since late enrollment fees may be charged.

Assignment of Graduate Teaching Assistantships

The needs of faculty for teaching assistants are determined each fall/spring by the faculty and staff within the Department. As part of the graduate program, students normally assist in teaching laboratory courses or recitation sessions. This provides practical experience in teaching. Graduate students are given the opportunity to request their teaching assignment preferences. Decisions regarding teaching assignments are made usually in February or March and again in October. A list of courses that will need teaching assistants is distributed to Integrative Biology graduate students with guaranteed support in February for Fall appointments and in October for Spring appointments. Students are asked to state their top four choices regarding courses they would like to TA in the following semester, and they are also asked to state their qualifications for each position. Students who fail to return these forms on time receive the lowest priority for course assignments. Faculty are asked to submit names of graduate students they would like to TA their courses. Final assignments are made by the Graduate Program Director together with the Department's Business Manager. Assignment priority is given to students who have done a good job in their earlier teaching, as indicated by ratings on evaluation forms submitted by faculty supervisors and students. Please refer to Code of Teaching Responsibility at Michigan State University for additional guidelines.

Although there is no formal teaching requirement in the Department of Integrative Biology, we strongly recommend that you teach for at least one semester during your tenure as a graduate student, particularly if you anticipate eventually finding work at a college or university. Graduate students who know they want to go on in academia may want to obtain a Certificate in Teaching College Science and Mathematics by participating in the Certificate in College Teaching Program offered through the Graduate School.

In 2002, the Graduate Teaching Assistants at MSU joined the Graduate Employees Union (GEU). Michigan State University must now comply with legal regulations specified in the **GEU/MSU contract**. Although students have the option of joining the union or not, all Graduate Teaching Assistants must now pay for services rendered by the union, as these are rendered for both members and non-members alike. TAs who choose not to join the union pay roughly the same amount as union members pay in their union dues but do so in the form of a "Service Fee." See the GEU/MSU contract for specific details regarding these fees. Also, see the GEU/MSU contract for information regarding current deadlines by which you must notify the GEU about whether or not you want to become a GEU member. Be aware that mechanisms for notifying the GEU of your choice in this matter may change from year to year. Also see the GEU/MSU contract for information about what happens if you fail to notify the GEU about your choices in these matters by the specified deadlines.

Failure to Attend an Assigned Class

You should plan to attend all classes to which you are assigned all semester, but in the event, you must miss one due to illness, etc., make sure that your faculty supervisor is aware of the situation in advance and that the class is covered by another qualified TA if the faculty supervisor deems this necessary. Failure to do these things will earn you a warning letter from

your faculty supervisor, and failure to do so twice will be grounds for dismissal from your TA duties. A teaching assistant should never cancel a section or lab without instructions from the course's faculty supervisor. Canceling a section or lab without the instructor's permission will earn you a warning letter from the faculty supervisor, and doing so twice will be grounds for dismissal from your TA duties.

English-Language Proficiency Required of Foreign Students

International students who are not native speakers of English are required to demonstrate that they meet a minimum standard of fluency in spoken English before they can be assigned a Graduate Teaching Assignment:

- A score of 50 or higher on the SPEAK test, given by the **English Language Center (ELC)**
- Taking English 097 (the ITA Speaking and Listening Class) and getting a score of 50 or higher on the ITA Oral interview (ITAOI). The ELC gives the ITAOI.

Please refer to the **Graduate School's English Testing and Instruction Guidelines**.

All foreign students admitted to Integrative Biology who originate in countries where English is not the first language must demonstrate proficiency in English. One means of doing this is taking the TOEFL exam and earning a total score of 550 or above with no subscore below 52 (paper version) or a minimum average score of 80 (internet-based version) with no subscore below 19 for reading, listening, and speaking and no writing subscore below 22.

There are several alternatives to the TOEFL to demonstrate English proficiency.

Forms – All forms needed for graduate student procedures are found on our website here: ..... and can also be obtained from Kat Terry (email)

Funding Opportunities for Students – A list of funding opportunities available to students is on the IBIO Graduate Student website, linked here:

Link to Select University Policies

Graduate Career Development

Diversity, Equity and Inclusion Programs

Events

Graduate Educator Advancement and Teaching (GREAT)

Graduate School Office of Well-being (GROW)