

MICHIGAN STATE

U N I V E R S I T Y

Department of Entomology

Guide to Graduate Study

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Welcome to Michigan State University, the College of Agriculture and Natural Resources (CANR) and the Department of Entomology! I am so pleased that you have chosen to join our community of dedicated, curious, and innovative scientists! Our department was established in 1906 and you are now a part of that heritage and that academic lineage. Entomology is an inherently diverse field. Within our department, you will encounter faculty working on the molecular mechanisms underlying insect behavior and development, the biology and management of insect pests and pollinators, the evolution of economically and ecologically important taxa, the relationships between insects and the landscape, and many other topics. In addition, our faculty and students collaborate extensively with colleagues through CANR, MSU, and at a host of other institutions to conduct interdisciplinary and transdisciplinary research. Therefore, students trained in entomology are, well positioned to address global grand challenges as they relate to agriculture, ecology, biotechnology, and beyond. Graduates from our department go on to careers in academia, industry, regulatory sciences, and education.

This handbook is a resource for information on the processes and requirements of the degree programs within the Department of Entomology. Graduate school requires hard work and dedication and will stretch your understanding of science in general and entomology in particular. The members of our department are committed to going the extra mile to help you succeed, and I am so pleased that you chose MSU Entomology as your academic home.

Welcome,

A handwritten signature in black ink, appearing to read 'Hannah Burrack', with a long horizontal flourish extending to the right.

Hannah J. Burrack, Professor and Chairperson
Department of Entomology
Michigan State University

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Section I. Graduate Program Overview

About the Department

Michigan State University was established in 1855 as Michigan Agricultural College, the first agricultural land grant-college in the United States and the model for the land-grant university system. Entomology was one of the original disciplines taught at Michigan Agricultural College when the first course was offered in 1858. The Department of Entomology was established 50 years later, in 1906. The College of Agriculture and Natural Resources (CANR) administers us and graduate degrees are conferred through CANR. Our faculty members have expertise in a number of different areas including Biomedical, Aquatic, Forest, and Molecular Entomology; Fruit Entomology-Nematology; Insect-Nematode Ecology, Behavior and Spatial Dynamics; Insect Systematics; Insect Toxicology; Integrated Pest Management Research/Extension Programs; and Pesticide Education and Policy, to name a few. Many of our faculty have extension appointments and work with farmers, commodity groups, agribusiness, and other clientele. We also coordinate a research farm and the Pollinator Performance Center on the MSU campus, the Trevor Nichols Research Complex in west Michigan, the A.J. Cook Arthropod Collection with over one million specimens, and the MSU Bug House, which provides outreach and entomology education to school groups and the public.

Entomology Graduate Programs

The Department of Entomology offers a Doctor of Philosophy (Ph.D.), and thesis and non-thesis options for a Master of Science degree (M.S.). Several Ph.D. students pursue a dual degree in Ecology, Evolution, & Behavior (EEB) and M.S. students pursue a specialization in EEB. Graduate studies are individualized based on student goals and faculty expertise. Our graduate students are an integral part of the department. Students participate on department committees, attend department seminars, present their work at professional meetings/conferences, and are encouraged to participate in teaching, extension, and outreach activities that align with their degree program and personal goals. Although individual student programs vary, all graduate programs in the Department of Entomology provide students training in the basic biology of insects including physiology, morphology, taxonomy/systematics, ecology, and evolution. In addition, students learn process skills including communication of scientific findings both to their peers and to a variety of public audiences, experimental design, statistics, critical thinking, and analysis of scientific papers. Students demonstrate mastery of this core body of knowledge and skill through oral and written examinations overseen by their guidance committee.

Our graduates have successful professional careers where entomology is a critical component of their work. These include:

- Extension educators
- Private agricultural consultants
- Scientists in State or Federal Departments of Agriculture, Forestry or Natural Resources
- Industry, research, technical services/sales
- College or university professors
- Educators or researchers for foundations, museums, or arboreta

Section II. Program Components / Plan Options

The Department of Entomology offers these graduate degree options:

A. Plan A Master of Science (M.S. Plan A)

This option involves coursework, a research topic, a thesis, and a final oral examination. A research topic will usually be suggested by your major professor, then further developed by you along and your guidance committee. Your research should involve multiple in-depth field, greenhouse, or laboratory studies, generally leading to publication in scientific journals. At the end of your program, you must prepare a written thesis, give a seminar on your research, and pass a final oral examination given by your guidance committee. This oral exam focuses on your coursework and thesis material. After your guidance committee approves your thesis, you will submit it to the Graduate School for approval to receive your M.S. degree.

B. Plan B Master of Science (M.S. Plan B)

This option involves coursework, a research project, and a final oral examination. It is similar to a Plan A M.S. degree concerning credit hour requirements and oversight by a major professor and guidance committee. However, instead of conducting in-depth research leading to a thesis, you take additional course work and develop a 3-5 credit research project. Your project is written as a report or paper, but it is not submitted to the Graduate School. At the end of your program, you must give a seminar on your research project and pass a final oral examination given by your guidance committee. This oral exam will focus on your coursework and research project. The Plan B option is useful for students with a full-time job who want an advanced degree in entomology but do not have time to conduct lengthy thesis research. However, students planning to go on to a Ph.D. program should opt for a Plan A rather than a Plan B M.S.

C. Doctor of Philosophy (Ph.D.)

This option involves coursework, a research project, a research proposal defense, comprehensive (qualifying) examination, a dissertation, and a final oral examination. Your major professor and guidance committee guide your program. While your major professor may suggest a research topic, you, as a Ph.D. student, have a greater responsibility for developing and designing your research focus than an M.S. student does. As your first step towards a Ph.D., you must demonstrate general entomological knowledge and competency to pursue original research by completing your Research Proposal Defense with your guidance committee. It is important to take this exam in the first year of your Ph.D. program since it may identify deficiencies that you must correct to complete your degree. After ~80% of your coursework is complete, you must pass a written and oral Comprehensive Examination, administered by your guidance committee, to be recognized as a Ph.D. candidate. At the end of your Ph.D. program, you must prepare a written dissertation, give a seminar on your research, and pass a final oral examination given by your guidance committee. The oral exam focuses on your coursework and related areas, but particularly on your dissertation material. After your guidance committee approves your dissertation, you will submit it to the Graduate School to receive your Ph.D. degree.

D. Specializations or Dual Degrees

In addition to a degree in entomology, you can earn a specialization (M.S.) or a dual degree (Ph.D.) in Ecology, Evolution & Behavior (EEB). If you are interested in pursuing an EEB specialization or dual degree, you should submit a one-page application to the graduate program in EEB indicating you have applied to the Department of Entomology (See <https://eeb.msu.edu> for details).

Section III. Admission and Degree Requirements

A. Admission Requirements to the Entomology Graduate Program

A bachelor's degree is required for admittance to MSU's Graduate School. Applicants typically have a minimum 3.0 grade point average. Under some circumstances, applicants are admitted with lower averages. Admitted students with deficiencies in physics, chemistry, mathematics, or the biological sciences may be admitted with the understanding that deficiencies may need to be rectified by collateral course work. Collateral courses are defined as undergraduate level courses below the 400 series and any other courses specifically required by a graduate student's guidance committee to improve deficiencies. Credits from collateral courses do not count towards a graduate degree. Graduate Record Examination (GRE) scores are not required for program admission.

An M.S. degree is not required for admission to our Ph.D. program.

Acceptance into the Department: Prospective students must identify a faculty member who agrees to accept them into their laboratory, act as their major professor, and guarantee financial support (usually through grant funding) for at least two years for an M.S. program or three years for a Ph.D. program. Prospective students sometimes propose to pay for their own education. However, the financial resources sufficient to cover tuition and living expenses must be demonstrated (<https://finaid.msu.edu/>) and a major professor identified for admission into the department. Acceptance into the Entomology Graduate Program and a particular laboratory is contingent on review of all application materials and approval of admission by the Entomology Chairperson, Graduate Program Director, and Graduate Committee.

B. Degree Requirements

The degree requirements for our M.S. and Ph.D. degrees differ and are outlined in the following checklists. Requirements for earning a specialization or dual degree in EEB are located on the [EEB website](#). The university's [Academic Programs Catalog](#) under which you enter MSU is your "Master Guide" for degree requirements. If there are program changes during your tenure, you have the option of either following the new program or the program under which you matriculated. You must meet all university, college, and department requirements and standards as described in the Academic Programs Catalog. Academically, the Department of

Entomology is in the College of Agriculture and Natural Resources. Follow the [deadlines dates](#) given by the Graduate School for meeting graduation and degree requirements for your degree to be conferred at the end of a designated semester.

1. M.S. Degree Plan A

- a. First semester: Meet with your major professor to discuss a thesis topic and select your guidance committee. Create your [GradPlan](#) to get approval of your guidance committee from both the department and CANR.
- b. First semester: Meet with your guidance committee to discuss your courses. Once your courses are determined, enter them into your [GradPlan](#) to get approval of your degree program from your guidance committee, the department, and CANR.

Plan A M.S. Course Requirements:

A minimum of 30 credits are required to earn your M.S. degree. A minimum of 6 thesis research credits (ENT 899) are required to be part of your credits earned; a maximum of 10 thesis research credits (ENT 899) can be applied to your required 30 credit minimum. You may find that you need to enroll in more than 10 research credits to earn your M.S. degree. You are allowed to take more than 10 research credits; however, MSU will not allow you to take more than 24 research credits during your M.S. degree program.

More than half of the total credits earned for your M.S. degree **must** be credits at the 800 or 900 level. Credits for collateral courses do not count towards your degree. Collateral courses are undergraduate level courses below the 400 series and any other courses specifically required by your guidance committee to make up deficiencies.

I. ENT 404 (Fundamentals of Entomology), or its equivalent from a previous degree program, is required. Take ENT 404 as early as possible if you need this course.

II. Six Entomology course credits. ENT 404 does not count as part of your six required Entomology credits.

- c. First Semester, before beginning your research: Consult with the Manager/Curator of the A.J. Cook Collection concerning the number of voucher specimens for deposition (10 of each sex is common), method of mounting, date/locality labels, etc. Complete this as a part of planning your research (Appendix C).
- d. By February 15 of each year, complete the ANNUAL RECORD OF ACADEMIC PROGRESS REPORT with your major professor. This is not an option; it is a requirement.
- e. Complete your required coursework. If you have changes in your guidance committee or courses during your degree program, be sure to submit these changes into [GradPlan](#) for approval. The usual time frame to complete your required course work is 1½ to 2 years.

- f. Apply for graduation no later than the first week of the semester you expect to graduate. If you find you will not complete your degree during the semester you plan to, be sure to notify the Entomology Graduate Program Assistant so that your graduation semester can be changed.
- g. Schedule your thesis defense seminar and oral exam with your guidance committee. Be sure to notify the Graduate Program Assistant of your defense date, time, location (along with the Zoom link with passcode if you are presenting your defense in a hybrid format), and the title of your thesis as soon as your defense is scheduled. Information on your thesis defense must be distributed to the department at least one week prior to the defense date.
- h. Submit your preliminary thesis draft to your major professor for review. If your major professor considers it ready to defend, provide a copy to each of your guidance committee members. Give your committee members at least TWO weeks (preferably longer) to review it.
- i. Present your M.S. defense seminar to the department and take your final oral examination. Turn in the completed EVALUATION RUBRIC: Thesis Defense Exam (M.S. Plan A) and the “RECORD OF COMPLETION—MASTER’S DEGREE” form (both can be found in Appendix B), with signatures from all of your guidance committee members, in to the Graduate Program Assistant to have your examination results recorded in your academic record.
- j. After your thesis exam, deposit voucher specimens with the Collection Manager of the A. J. Cook Collection (Appendix C).
- k. Make changes to your thesis as required by your guidance committee. Be sure to format your thesis as specified in the [Formatting Guide for Master’s Theses and Doctoral Dissertations](#).
- l. Submit your completed thesis electronically, along with the required ‘[Approval Form](#)’, to the Graduate School by the [submission deadline](#). If you miss this deadline, you will need to graduate the following semester. See the “[Electronic Theses and Dissertation Submissions](#)” page at the Graduate School website for forms and procedures. Please be aware that electronic submission of your thesis does not constitute acceptance by the Graduate School. Allow a minimum of one week for the Graduate School to review and approve your thesis.
- m. Complete the [Graduate School Online Exit Survey](#).
- n. Provide your major professor and guidance committee members with a PDF of the final version of your thesis.
- o. Return all borrowed equipment, books, etc. Return keys issued to you for Entomology space to the Entomology Business Office for your key deposit refund. NOTE: You will receive your key refund by check, issued from MSU. No cash refunds are given.

p. Fill out the [Termination Checklist](#) with your major professor and turn it in to the Graduate Program Assistant. This is an MSU requirement.

q. Have an exit interview with the Chairperson.

2. M.S. Degree Plan B

a. First semester: Meet with your major professor to discuss a 3 – 5 credit research project and select guidance committee. Create your [GradPlan](#) to get approval of your guidance committee from both the department and CANR.

b. First semester: Meet with your guidance committee to discuss your courses. Once your courses are determined, enter them into your [GradPlan](#) to get approval of your degree program from your guidance committee, the department, and CANR.

Plan B M.S. Course Requirements

Course requirements are the same for a Plan B M.S. as they are for a Plan A M.S. with the exception of research credits. Plan B students are required to take 3-5 credits of ENT 898 (master's research) instead of ENT 899 (master's thesis research). MSU will not allow you to take more than 5 ENT 898 credits. Request assistance for enrolling in ENT 898 credits from the Graduate Program Assistant.

c. First Semester, before beginning your research: Consult with the Manager/Curator of the A.J. Cook Collection concerning the number of voucher specimens for deposition (10 of each sex is common), method of mounting, date/locality labels, etc. Complete this as a part of planning your research (Appendix C).

d. By February 15 of each year, complete the ANNUAL RECORD OF ACADEMIC PROGRESS REPORT with your major professor. This is not an option; it is a requirement.

e. Complete your required coursework. If you have changes in your guidance committee or courses during your degree program, be sure to submit these changes into [GradPlan](#) for approval. The usual time frame to complete your required course work is 1½ to 2 years.

f. Apply for graduation no later than the first week of the semester you expect to complete your degree. If you find you will not complete your degree during the semester you plan to, be sure to notify the Entomology Graduate Program Assistant so that your graduation semester can be changed.

g. Schedule your research project defense seminar and oral exam with your guidance committee. Be sure to notify the Graduate Program Assistant of your defense date, time, location (along with the Zoom link with passcode if you are presenting your defense in a hybrid format), and the title of your research project as soon as your defense is scheduled. Information on your defense must be distributed to the department at least one week prior to

the defense date.

h. Submit a written report of your research project to your major professor for review. If your major professor considers it ready to defend, submit a copy to each member of your guidance committee. Give your committee members at least TWO weeks to review it.

i. Give your presentation to the department and take your final oral examination. Turn in the completed “RECORD OF COMPLETION—MASTER’S DEGREE” form (Appendix B), with signatures from all of your guidance committee members, in to the Graduate Program Assistant when your examinations are complete.

j. After your oral exam, deposit voucher specimens with the Collection Manager of the A. J. Cook Collection (Appendix C).

k. Provide your major professor and guidance committee with a copy of the final version of your research project.

l. Return all borrowed equipment, books, etc. Return keys issued to you for Entomology space to the Entomology Business Office for your key deposit refund. NOTE: You will receive your key refund by check, issued from MSU. No cash refunds are given.

m. Complete the [Graduate School Online Exit Survey](#).

n. Fill out the [Termination Checklist](#) with your major professor and turn it in to the Graduate Program Assistant. This is an MSU requirement.

o. Have an exit interview with the Chairperson.

3. Ph.D. Degree

a. First semester: Meet with your major professor to discuss your dissertation topic and select your guidance committee. Create your [GradPlan](#) to get approval of your guidance committee from the department and CANR.

b. First semester: Meet with your guidance committee to discuss your courses. Once your courses are determined, enter them into your [GradPlan](#) to get approval of your degree program from your guidance committee, the department, and CANR.

Ph.D. Course Requirements:

A minimum of 24 doctoral dissertation research credits (ENT 999) are required to earn a Ph.D. degree. MSU will not allow you to earn more than 36 research credits total during your Ph.D. degree program.

I. ENT 404 (Fundamentals of Entomology), or its equivalent from a previous degree program, is required. Take ENT 404 as early as possible if you need this course.

II. Nine Entomology course credits. ENT 404 does not count as part of your nine required Entomology course credits.

c. First Semester, before beginning your research: Consult with the Manager/Curator of the A.J. Cook Collection concerning the number of voucher specimens for deposition (10 of each sex is common), method of mounting, date/locality labels, etc. Complete this as a part of planning your research (Appendix C).

d. By February 15 of each year, complete the ANNUAL RECORD OF ACADEMIC PROGRESS REPORT with your major professor. This is not an option; it is a requirement.

e. Take your Research Proposal Defense.

Prior to beginning Ph.D. research in the Department of Entomology, you must demonstrate competency to pursue original research by presenting and defending your research proposal before your guidance committee. Plan to complete this exam within your first 12 months of study. Results determine whether you should proceed in your Ph.D. program. The examination also determines if weaknesses exist in your background knowledge that need to be addressed with additional courses. Faculty are notified of your Research Proposal Defense at least one week prior to your exam. Be sure to notify the Graduate Program Assistant when your exam is scheduled.

You will submit your written proposal to your guidance committee ahead of time and present this plan orally during your examination. Following your presentation, your committee reviews and discusses your research plan with you, keying in on such things as feasibility, experimental design, statistics, research timeline, expected completion dates, and publications. They also evaluate your knowledge of entomology and related fields through oral questioning. Your committee assesses your Research Proposal Defense as a pass (no more than one dissenting vote) or fail. Your committee will complete/sign the "Research Proposal Defense" form and the "EVALUATION RUBRIC: Research Proposal Defense" (both forms are found in Appendix B). These forms should then be turned in to the Graduate Program Assistant for your academic file. Your committee may give you an additional opportunity to defend your research proposal if your first evaluation is unsatisfactory.

Additional information on the Research Proposal Defense can be found in Section XI of this guide.

f. Complete your required coursework. If you have changes in your guidance committee or courses during your degree program, be sure to submit these changes into GradPlan for approval. The usual time frame to complete your required course work is 2 to 2 ½ years.

g.. Take your Doctoral Comprehensive Examination.

When 80% or more of your prescribed course work is complete, you are eligible to take your Doctoral Comprehensive Examination (Ph.D. Qualifying Examination) covering entomology and related fields. Typically, this occurs at the end of the second or beginning of the third year of your program, but no later than one semester prior to receipt of your degree. The university will not allow you to take your comprehensive exam and defend your dissertation in the same semester. Your examination will consist of both written and oral parts. You must pass the written examination before proceeding with the oral examination.

You must be registered and enrolled in at least one credit the semester in which your comprehensive examination is taken. The only time an exception can be made is when you have been enrolled as a full-time student during spring semester and plan to take your exam during the summer semester immediately following. In this instance, the department can request a waiver of the enrollment requirement. This request is initiated by the Graduate Program Assistant and must be approved by the Department Chairperson, CANR, and the Graduate School. These enrollment waiver requests are not guaranteed. Either CANR or the Graduate School may deny them.

The written portion of your examination is coordinated by your major professor and administered by your guidance committee. Questions measure the depth and breadth of your knowledge and understanding of entomology and closely related areas.

The oral portion of your examination is also administered by your guidance committee and is typically taken two weeks following the written portion of the exam. This examination measures your ability to discuss subject matter areas in terms of entomological, biological, scientific, practical, educational, and philosophical aspects. Faculty are notified of your oral examination at least one week prior to your exam date. Be sure to let the Graduate Program Assistant know when your exam is scheduled.

Your guidance committee will assess your comprehensive examination as a pass (no more than one dissenting vote) or fail. Completion of your exam is documented by your committee on the "Record of Comprehensive Examinations for Doctoral Degree and Educational Specialist Degree Candidates" form (Appendix B). Turn this form in to the Graduate Program Assistant, who will record your examination results in your academic record when both parts of your exam are complete. You must pass both your written and oral comprehensive exams to be considered a Ph.D. candidate at MSU.

Information on the Comprehensive Exam can also be found in Section XI of this guide.

h. Complete Original Research.

As a Ph.D. student in Entomology, you must conduct original research, which leads to the preparation, defense, and publication of a dissertation. You will conduct your research under the guidance of your major professor. While conducting research and preparing your dissertation, you should register for doctoral dissertation research credits (ENT 999).

i. Apply for graduation no later than the first week of the semester you expect to complete your degree. If you find you will not complete your degree during the semester you plan to, be sure to notify the Entomology Graduate Program Assistant so that your graduation semester can be changed.

j. Prepare for oral defense of your dissertation.

Submit the preliminary draft of your dissertation to your major professor for review. The form of your dissertation is determined by your major professor and guidance committee, however, it must comply with the Graduate School specifications as stated in the [Formatting Guide for Master's Theses and Doctoral Dissertations](#). If your major professor considers it ready to defend, submit a copy to each member of your guidance committee. Provide committee members with a minimum of TWO weeks to review your dissertation. A dissertation that consists of one or more chapters that are already published must be introduced with the list of all authors, citation for the publication, and include a copy or notation of the written permission from the publisher (who generally holds the copyright) to reprint the article.

k. Dissertation Defense: Department Seminar and Final Oral Examination.

Schedule a date for your final oral examination no earlier than two weeks after the draft of your dissertation and abstract have been submitted to your major professor and guidance committee. Your dissertation defense will involve a public seminar to the department and a final oral examination given by your guidance committee. Be sure to notify the Graduate Program Assistant of your defense date, time, location (along with the Zoom link with passcode if you are presenting your defense in a hybrid format), and the title of your dissertation as soon as your defense is scheduled. Information on your defense must be distributed to the department at least one week prior to the defense date. You are required by the university to be registered and enrolled in at least one credit the semester of your final oral examination. No enrollment waivers are given. All Ph.D. students defending their dissertations in the summer must be registered for at least one credit, regardless of being enrolled full-time the preceding spring semester. Your guidance committee will assess your defense as a pass (no more than one dissenting vote) or fail. Turn in the completed EVALUATION RUBRIC: Dissertation Defense Exam (Ph.D.) and the "Record of Dissertation and Oral Examination Requirements for Doctoral Degree Candidate" form (both forms are found in Appendix B), with signatures from all of your guidance committee members, in to the Graduate Program Assistant when your examinations are complete. The Academic Program Assistant will record your examination results in your academic record.

l. Incorporate any changes into your dissertation that are required by your guidance committee. Be sure to format your dissertation as specified by [Formatting Guide for Master's Theses and Doctoral Dissertations](#).

m. After your dissertation exam, deposit voucher specimens with the Collection Manager of the A. J. Cook Collection (Appendix C).

n. Submit your completed dissertation electronically, along with the required '[Approval Form](#)', to the Graduate School by the [submission deadline](#). If you miss the submission deadline, you will need to graduate the following semester. See the "[Electronic Theses and Dissertation Submissions](#)" page at the Graduate School website for forms and procedures. Please be aware that electronic submission of your dissertation does not constitute acceptance by the Graduate School. Allow a minimum of one week for the Graduate School to review and approve your dissertation.

o. Provide your major professor and guidance committee members with a PDF of the final version of your dissertation.

p. Complete the [Graduate School Online Exit Survey](#).

q. Complete the [Survey of Earned Doctorates \(SED\) Survey](#). This is a requirement by the Graduate School for all doctoral students.

r. Return all borrowed equipment, books, etc. Return keys issued to you for Entomology space to the Entomology Business Office for your key deposit refund. NOTE: You will receive your key refund by check, issued from MSU. No cash refunds are given.

s. Fill out the [Termination Checklist](#) with your major professor and turn it in to the Graduate Program Assistant. This is an MSU requirement.

t. Have an exit interview with the Chairperson.

4. Ecology, Evolution, & Behavior (EEB) Specialization (M.S. Degree) and Dual Degree (Ph.D.).

Students pursuing an EEB specialization or dual degree must fulfill both the departmental requirements and the EEB graduate degree requirements. See the [EEB website](#) for details.

Section IV. Selection of a Major Professor

Admission into our graduate program requires that you identify a major professor who will provide guidance and direction for your degree program. Given the wide variety of mentoring styles, you should find out how a faculty member operates to determine if their style fits your needs and expectations of a major professor before joining their laboratory.

Who Can Serve as a Major Professor?

The Graduate School prefers that major professors and guidance committee members be tenure system faculty members at MSU. However, fixed-term faculty, academic specialists with advanced degrees, and faculty members from other universities may also serve on, or chair,

guidance committees with special approval. Contact the Graduate Program Assistant with any questions you have on this process.

Roles and Responsibilities of a major professor, at a minimum, include the following:

- It is recommended that the major professor conduct aligning expectation exercises with new graduate students the first semester of their degree program.
- Provide information about department policies and degree requirements.
- Give advice about appropriate coursework.
- Provide or assist in the selection of a research topic.
- Ensure all university and college training requirements are met (e.g., RECR, RVSM).
- Review all potential conflicts of interest before accepting guidance committee members.
- Inform the guidance committee of their roles and responsibilities (see Section V).
- Inform the guidance committee of the [MSU Guidelines for Mentoring and Advising](#).
- Mentor development of professional skills such as writing, preparing publications, making, and giving presentations, interviewing, etc.
- Give regular feedback - at least annually - on degree progress, coursework, and other activities.
- Act as chair of the guidance committee and run required written and oral examinations.
- Read, edit, and approve the student's research project (Plan B M.S.), thesis (Plan A M.S.), or dissertation (Ph.D.).
- Write letters of reference for scholarships, awards, and jobs as appropriate.

When a Major Professor Leaves – Temporarily or Permanently

A major professor may take an extended sabbatical or leave of absence. If this occurs, they should identify someone to cover supervising and advising duties or develop a plan to maintain contact with you electronically.

If a major professor leaves MSU to take an academic appointment at another institution, they may arrange to bring you to their new location. If this is not possible, or if you choose to complete your degree in the Department of Entomology, the Graduate Program Director will make every effort to find a provisional advisor to work with you to complete your degree. The department will try to find, but cannot guarantee, funding for the remainder of your degree program. The same applies to situations where a major professor retires or falls ill.

Changing Major Professors

Sometimes a student and major professor have different styles or research interests and have difficulty working together. Because you have been accepted into a particular laboratory to work on a specific project, changing major professors often means giving up the financial support that came with admission. Therefore, it is important to try to mediate differences before they become irreconcilable. The Graduate Program Director or Chairperson can assist in resolving conflicts.

If your major professor wishes to terminate their advising relationship prior to the completion of your degree, and you are making satisfactory progress in your program, the Graduate Program Director and/or the Chairperson, in consultation with the Graduate Committee, will work with your major professor to ensure a suitable position is found for you with equivalent funding. The department considers a faculty member's commitment to a student to be binding for the minimum expected duration of the degree program (2 years for an M.S.; 3 years for a Ph.D.). If it is in your best interest to change major professors, the department will try to provide transitional funding.

If it is your choice to seek another major professor, then securing alternative funding is your responsibility. The department will facilitate transfer to another faculty member's program and provide transitional funding if possible; however, departmental resources are limited and there is no guarantee of funding (or continued funding) in this type of situation.

Section V. Formation of a Guidance Committee

It is your responsibility, in consultation with your major professor, to form a guidance committee made up of faculty members from inside and outside of the department. The purpose of having the external member(s) is to add breadth and an outside perspective to your program. You are encouraged to meet with your committee members individually to address your project and research interests. The required composition of a guidance committee differs depending on the degree program. The Graduate Program Director or Chairperson, and the College of Agriculture and Natural Resources, give the final approval of your guidance committee. If you are unable to form a guidance committee, the Graduate Program Director will work with your major professor to resolve the problem.

M.S. Guidance Committee (Both plan A and Plan B)

Timeline for selection: No later than the end of the first semester of study.

Composition: M.S. guidance committees in the Department of Entomology require a major professor, an additional member from Entomology, and one committee member from outside of the department. Two members on your guidance committee are required to be MSU tenure system faculty.

Ph.D. Guidance Committee

Timeline for selection: No later than the end of the first semester of study.

Composition: Ph.D. guidance committees in the Department of Entomology require a minimum of four faculty members, with at least two being tenure system faculty from the Department of Entomology, and at least one being tenure system faculty from another department at MSU.

Note: A faculty member holding joint or adjunct appointment in the Department of Entomology does not qualify as an external committee member on a guidance committee. In addition, 3 (M.S.) or 4 (Ph.D.) committee members is the minimum number of members needed. You may decide to have more members on your committee.

Who Can Serve on a Guidance Committee?

The Graduate School prefers guidance committee members to be tenure system faculty at MSU. However, fixed-term faculty, academic specialists with advanced degrees, and tenure system faculty from other universities may also serve on, or chair, guidance committees with special approval. Provide the following information to the Graduate Program Assistant to begin the approval process:

1. A signed letter or an email from the proposed committee member stating the following:
 - a) They understand their role on the committee.
 - b) They agree to serve in this role.
 - c) They have received and agree to follow MSU's Guidelines for Graduate Student Mentoring and Advising (link below).
 - d) Within the past 24 months, they have received/completed and agree to follow the information contained in MSU's Relationship Violence and Sexual Misconduct (RVSM) training materials (links below).
2. A copy of the proposed committee members most recent complete CV.
3. The following information from either you or your major professor:

In a few sentences, describe what specific expertise the proposed committee member will provide and why this expertise is not available from a regular MSU faculty member.

It is important to note that approval of non-regular faculty to serve on a graduate committee is only approved for a single student. Multiple requests may need to be submitted for the same individual to serve on other student committees in the department. Contact the Graduate Program Assistant if you have questions.

Links to the above-mentioned guidelines and training are:

- [MSU's Guidelines for Graduate Student Mentoring and Advising.](#)
- [MSU's RVSM Online Training for those WITH an MSU NetID.](#)
- [MSU's RVSM Training Materials for those WITHOUT an MSU NetID.](#)

It is your responsibility to make sure that your guidance committee members are tenure system MSU faculty and, if not, that this process is followed to approve their participation on your committee. Again, contact the Graduate Program Assistant if you have any questions.

It is the major professor's responsibility to inform the guidance committee of their roles and responsibilities.

The Roles and Responsibilities of the Guidance Committee, at minimum, include the following:

- Review the guidelines for “[MSU Guidelines for Graduate Student Mentoring and Advising](#)”.
- Give advice about appropriate coursework and research.
- Give regular feedback – at least annually – on your degree progress, coursework, and other activities.
- Participate in the required written and/or oral examinations.
- Read, provide feedback on, and approve your research project (Plan B M.S.), thesis (Plan A M.S.), or dissertation (Ph.D.).

Changing your Guidance Committee

You can initiate changes in the members of your guidance committee in concurrence with your major professor. These changes must be submitted through GradPlan for review and approval to make sure the reconstituted committee still meets department and university guidelines.

Section VI. Thesis/Dissertation Defense and Final Oral Examinations

Upon completion of the research for a Plan A M.S. or Ph.D. degree you are required to present your research in a public seminar and pass an oral examination administered by your guidance committee. Your final oral examination will typically follow your public seminar. Described below are the procedures and expectations for the thesis/dissertation research, written thesis/dissertation, and oral examination. Although Plan B M.S. students are not required to submit a thesis, you must submit a written report of your research project to your committee, give a public seminar on your research project, and pass a final oral examination administered by your guidance committee.

The Thesis/Dissertation

The Plan A M.S. and Ph.D. degree programs emphasize independent student research, however, they differ in the degree of independence and scope of research projects. In both cases, students should contribute new knowledge in Entomology, Nematology, or related fields. The thesis/dissertation that the Graduate School accepts is a single-author publication that contributes to the body of knowledge of the discipline. It is expected that thesis/dissertation research will lead to published, peer-reviewed research articles.

Thesis Research for the M.S. Degree:

The focus of your research project will be on a topic within the discipline, developed with the guidance of your major professor, and has discrete boundaries so that completion is realistic and feasible within the 6-10 research credit hours required to earn an M.S. degree. Your guidance committee must approve your project.

Dissertation Research for the Ph.D. Degree:

Your research should be an independent, original, experimental study that results in a new and significant contribution to knowledge in the field. You will develop the research plan in

consultation with your major professor and guidance committee. Within your first year of study, you will write, present, and defend your research proposal describing your plan, which your guidance committee must approve. Also, see information on your *Research Proposal Defense*.

The Thesis/Dissertation:

The thesis/dissertation is a written description of your research, organized so that the document contains an introductory chapter to a general research problem, a summary of relevant literature, and a final chapter that discusses the implications and significance of your research. Chapters describing your research should include the methodology used in sufficient detail to allow replication, have your results presented clearly using appropriate figures and tables, include appropriate statistical or other analytical tools and methods, and address the interpretation of the data and conclusions of your research. These elements of the research (methods, data, and conclusions) may be discussed in individual chapters. Alternatively, each chapter presenting research results may take the form of a journal article, reporting a discrete subset of your overall research project that includes all these elements, including an introduction to, and discussion of, the research presented in that chapter. It is common practice to prepare dissertation chapters in manuscript form for subsequent submission to peer-reviewed journals. It is expected that your Ph.D. dissertation, or portions of your dissertation, will be published in at least one reputable peer-reviewed journal and that your dissertation research and the dissertation itself reflect that expectation. If any of these chapters have already been published in a scientific journal, these chapters must be introduced with the list of all authors, citation for the publication, and include a copy or notation of the written permission from the publisher (who generally holds the copyright) to reprint the article. If multiple articles make up the document then they must be “tied together” with the required general introductory and summary/discussion chapters. Your thesis/dissertation should also include a scientific abstract. The Graduate School suggests the inclusion of a “public abstract” (i.e.: in layman’s terms). The formatting of your thesis/dissertation should follow the guidelines in the [Formatting Guide for Master’s Theses and Doctoral Dissertations](#).

Defense and Final Oral Examinations

A. Plan A M.S. Degrees

Upon completion of your thesis research, you prepare a written thesis in accordance with the [Graduate School formatting guidelines](#). Your guidance committee reviews your written document when it is complete and must approve of you to move forward with your thesis defense, which will consist of a public seminar. Enrollment is required the semester that you defend your thesis unless you defend during summer semester immediately after being enrolled full-time the previous spring (which is at least 6 credits). The Graduate School will provide you with an automatic waiver of enrollment if you meet this criterion. Following your seminar, your final oral examination is conducted by your guidance committee and is closed to the public. Typically, the oral examination covers your research and written thesis, in-depth

knowledge about the topics and the research skills that went into your research project, and your general knowledge about entomology gained from coursework and other experiences.

Notification of your Thesis Defense is sent to faculty at least one week prior to your examination. Be sure to notify the Graduate Program Assistant when your exam is scheduled.

B. Plan B M.S. Degree

Upon completion of your course work and research project, prepare your research project information in accordance with what your Guidance Committees requests. Your guidance committee reviews your research project information and must approve of you to move forward with your research project presentation. Following your presentation, your final oral examination is conducted by your guidance committee and is closed to the public. Typically, the oral examination covers your research project and your general knowledge about entomology gained from coursework.

Notification of your research project presentation is sent to faculty at least one week prior to your examination. Be sure to notify the Graduate Program Assistant when your exam is scheduled.

C. Ph.D. Degree

Upon completion of your dissertation research, you prepare a written dissertation in accordance with the [Graduate School formatting guidelines](#). Your guidance committee reviews your written document when it is complete and must approve of you to move forward with your dissertation defense, which will consist of a public seminar. Enrollment is required the semester that you defend your dissertation. This is a university requirement, and no waivers of enrollment will be given. Following your seminar, your final oral examination is conducted by your guidance committee and is closed to the public. Your dissertation, presentation and oral examination should demonstrate to your guidance committee evidence of your ability to: critically examine scientific literature and organize it as the background information for a stated problem(s), formulate hypotheses and design experiments to test them, organize and tabulate data, interpret, and set down inferences on the basis of these data, and suggest either practical or theoretical relevance for these data.

Notification of your Dissertation Defense is sent to faculty at least one week prior to your examination. Be sure to notify the Graduate Program Assistant when your exam is scheduled.

Submission of the Written Thesis/Dissertation to the Graduate School

Following successful defense of your thesis/dissertation, you should incorporate revisions recommended by your guidance committee and make sure that the formatting of the written document conforms to the guidelines according to the [Graduate School formatting guidelines](#). Your thesis/dissertation is submitted electronically to the Graduate School through ProQuest. The Graduate School staff reviews only the PDFs that are uploaded through ProQuest for formatting requirements. In addition to the main body of a thesis or dissertation, the Graduate

School now permits the submission of supplementary materials to ProQuest. These supplemental materials are not reviewed by the Graduate School for formatting requirements; however, they must be acceptable to ProQuest and comply with ProQuest's criteria and storage limits. All supplementary materials need the written approval of your major professor.

Before submission, you must fill out and submit the required [Approval Form](#) indicating that the final version of your thesis/dissertation has been reviewed and approved by your major professor and guidance committee. This form is submitted to the Graduate School electronically. Please note that submission of your thesis/dissertation to ProQuest does **not** mean that the Graduate School has accepted your document. The review process is interactive and can take a few hours to weeks, depending on the extent of needed corrections. Please plan accordingly.

Other Required Ph.D. Examinations

Prior to official recognition as a Ph.D. candidate in the Department of Entomology, you must pass two examinations: the Research Proposal Defense and the Comprehensive Examination. The purpose of the Research Proposal Defense is to assess your competency to pursue original research (see Appendix D). Plan to take this exam within the first year of study to allow for program development. The results determine whether you should be encouraged to proceed in a doctoral program, and if so, to determine if weaknesses exist in your background knowledge that need to be strengthened by including courses in your doctoral program.

a. Research Proposal Defense

Your major professor and guidance committee conduct this exam and it consists of two parts:

- i) A written research proposal describing your research plan.
- ii) An oral examination, with an emphasis on an in-depth evaluation of your proposed research plan and an assessment of your reasoning and analytical skills. In addition, it provides an evaluation of your knowledge of entomology and other fields related to your research project. The main purpose of the second part of this exam is to assess your potential in research and discuss the plan for your dissertation.

Notification of your Research Proposal Defense is sent to faculty at least one week prior to your examination. Be sure to notify the Graduate Program Assistant when your exam is scheduled.

The criteria used by your committee to render a decision include an assessment of your ability to identify an important research problem, knowledge in the chosen area of interest and related areas, and your ability to design experiments for the solution of the problem and to effectively communicate these ideas both orally and in writing. In addition, they will ask questions relating to your proposal and pertinent coursework.

Your committee assesses your Research Proposal Defense as a pass (no more than one dissenting vote) or fail, complete, and sign the "Research Proposal Defense" form and complete and sign the "EVALUATION RUBRIC: Research Proposal Defense" (both forms are located in Appendix B). The signed forms are turned in to the Graduate Program Assistant when they are

complete. You may be given an additional opportunity to repeat your examination if the first evaluation is unsatisfactory.

b. Comprehensive Examination

The second and final step to official recognition as a Ph.D. candidate by the university is to pass a Comprehensive Examination. When 80% or more of your prescribed course work is complete, you are eligible to take your doctoral comprehensive examination covering topics related to your research project and coursework. Enrollment is required during the semester you take your comprehensive examination. An exception to this is if you were enrolled full-time (minimum of three credits) during spring semester and will be taking your comprehensive examination the summer semester immediately following. In this instance, the Graduate Program Assistant can request a waiver of the enrollment requirement. The Chairperson or Graduate Program Director, CANR, and the Graduate School must all approve this request. This waiver request is not guaranteed and may be denied by either CANR or the Graduate School. You are encouraged to complete this examination as soon as you are eligible and preferably no later than the third year of your program. You must pass your Comprehensive Examination within five years of your first enrollment as a Ph.D. student.

You must satisfactorily complete your Comprehensive Examination at least one semester prior to defending your dissertation. The university will not allow you to take this examination and defend your dissertation in the same semester.

Your examination will consist of two parts—one written, the other oral. You must pass the written examination before proceeding with the oral examination.

Your major professor will coordinate your written examination; your guidance committee administers the examination. Typically, members of your committee will examine you in a subject area relevant to their profession and your research. Questions will measure the depth and breadth of your knowledge and understanding of the subject area. Each member's portion of your examination will require no more than eight hours to complete. The format of each member's portion of your examination may vary. You are encouraged to discuss both examination subject areas, as well as the format and conditions for examination administration, with your committee members in advance.

Your oral examination measures your ability to discuss the entomological, biological, scientific, practical, educational, and philosophical aspects of the tested subject areas. Notification of your Oral Comprehensive Examination is sent to faculty at least one week prior to your examination. Be sure to notify the Graduate Program Assistant when your exam is scheduled.

After completion of both your written and oral examinations, your guidance committee will determine by mutual agreement (no more than one dissenting vote) if you have responded satisfactorily and passed your examination. Your guidance committee may permit you to retake your examination once after an interval of three months. Once you pass both parts of your examination, the "Record of Comprehensive Examination for Advanced Graduate Studies"

(Appendix B) should be completed, signed, and delivered to the Graduate Program Assistant for your exam results to be recorded in your academic record.

Section VII. Departmental Policies: Academic Performance

Academic Standards

Satisfactory progress is a 3.0 or higher grade point average (GPA). If you fall below a 3.0 GPA the Graduate School will notify you. Failure to bring your GPA up to the required 3.0 within one year of notification will lead to dismissal from your program. Any grade below 3.0 in a course will subject you to review by the Graduate Program Director. The Graduate Program Director, in consultation with you and your major professor, will determine whether you will be required to repeat the course or otherwise remediate the deficiency. Repeats of graduate level courses with grades lower than a 3.0 require approval by CANR. According to university policy, you must attain an overall minimum 3.0 GPA to receive your graduate degree.

Annual Evaluation

As a graduate student, you need and deserve periodic evaluation and feedback to measure both your academic progress and professional development. Both areas are evaluated by your guidance committee on a continuing basis, and by the department through the Annual Record of Academic Progress Report. You should meet with your guidance committee a minimum of once a year to present and discuss your progress and future goals, as well as discuss any challenges you may be having with your research. This should occur prior to completing your Annual Record of Academic Progress Report.

Annual Record of Academic Progress Report

Each year, you are required to report your progress towards your degree by submitting your Annual Record of Academic Progress Report to the department. Your report is due to the Graduate Program Assistant by **February 15th of each year**. You should also provide a copy of your completed report to your guidance committee. Your progress report should cover courses taken, GPA, and progress in research. In addition, it should document a broad range of experiences and accomplishments that are integral to your professional development. These activities include things such as attending and presenting papers at professional meetings, awards or honors received, publications, service on department or university committees, serving as an officer of the Graduate/Undergraduate Entomology Student Society (G.U.E.S.S.), and volunteering in the Bughouse or for other events. Discuss your report with your major professor, and have them provide feedback and sign your report, prior to turning it in. The Graduate Committee reviews all academic progress reports and provides feedback. A copy of your report and feedback is placed in your academic file.

If your progress is deemed unsatisfactory, you will be notified in writing in a timely manner and a copy of the notice will be placed in your academic file. A meeting with the Graduate Program Director and/or Chairperson will be scheduled to discuss how deficiencies might be remedied. Failure to resolve any deficiencies may be grounds for dismissal.

Academic File Contents

The department typically keeps the following information and records in your academic file in the department:

- Research Proposal Defense form (Ph.D.)
- Research Proposal Defense Evaluation Rubric (Ph.D.).
- Comprehensive Examination Form (Ph.D.).
- Requests for non-tenure stream faculty to serve on your guidance committees.
- Any Memorandum of Understanding forms that are completed during your program.
- Copies of graduate assistantships.
- Copies of fellowships.
- Copies of assistantship letters-of-offer.
- A copy of your application packet when you applied to the department.
- Lab Safety information that is filled out between you and your major professor.
- Record of Dissertation and Oral Examination form (Ph.D.).
- Dissertation Defense Exam Evaluation Rubric (Ph.D.).
- Thesis Defense Exam Evaluation Rubric (Plan A M.S.).
- Program Completion document.
- Termination Checklist.

Information regarding your academic record can be accessed by logging into [Campus Solutions](#).

This information includes:

- Grades.
- GradPlan.
- Annual Progress Reports submitted to the department.
- Responsible and Ethical Conduct of Research compliance information.

Access to Records

As a graduate student, you have the right to inspect your academic records that are held in the department, except for confidential letters of recommendation from your application. You can make an appointment with the Graduate Program Assistant to view these records. You can challenge the contents of your file by writing a letter to the Chairperson. This letter will also be put in your academic file.

Section VIII. Statement of Diversity, Equity, and Inclusion (DEI)

Adopted from CANR DEI statement: <https://www.canr.msu.edu/diversity/dei-statement>

Diversity, Equity, and Inclusion are important components of everyday life in the Department of Entomology's graduate program and are critical to our pursuit of academic excellence. Our aim is to foster a culture where every graduate student feels valued, supported, and inspired to achieve individual and common goals. This includes providing opportunity and access for all people across differences of race, age, color, ethnicity, gender, sexual orientation, gender identity, gender expression, religion, national origin, migratory status, disability/abilities, political affiliation, veteran status, and socioeconomic background.

The promotion of our DEI culture naturally requires civility among department members. However, conflicting perceptions and points of view can arise; some are difficult to resolve. In the event of a disagreement, you should first seek resolution through discussion with the appropriate individual(s). If this step fails, you should discuss the situation and seek resolution using your major professor as an arbitrator. If the major professor cannot be an impartial arbitrator, or the conflict is with your major professor, please contact either the Graduate Program Director or Chairperson to schedule a private discussion to develop a plan of action. Further information is in section X of this handbook.

Section IX. Departmental Policies: Integrity and Safety in Research and Creative Activities

The Department of Entomology takes its role seriously in training graduate students to be ethical and productive scientists and ethical educators. As part of this responsibility, this section is to inform you of the expectations for responsible conduct of research. Responsible conduct in research involves not only ethical behavior regarding honesty, but also includes policies involving safe and ethical use of animals, human subjects and appropriate handling of hazardous materials including pesticides, laboratory chemicals, radioactive materials, transgenic organisms, and pathogenic organisms. Because ethical violations are grounds for dismissal, we suggest that you familiarize yourself with this section.

1. Research Integrity

The Graduate School's website on [Research Integrity](#) has information on Responsible and Ethical Conduct of Research (RECR) requirements for graduate students at Michigan State University. In addition, Appendix E of this guide provides guidelines for professional integrity regarding recognition of professional accomplishments and Appendix F outlines Entomology's RECR requirements for initial and refresher training during your degree program.

It is important to note that RECR compliance is required for your degree to be awarded.

Guidelines for Integrity in Research and Creative Endeavors outline eight key principles for research integrity:

- Honesty in proposing, performing, and reporting research, including storing and documenting primary data.
- Recognition of prior work.
- Confidentiality in peer review.
- Disclosure of potential conflicts of interest.
- Compliance with institutional and sponsor requirements.
- Protection of human subjects and humane care of animals in the conduct of research.
- Collegiality in scholarly interactions and sharing of resources.
- Adherence to fair and open relationships between senior scholars and their coworkers.

Misconduct in research and creative activities will not be tolerated. Misconduct includes fabrication or falsification of data or information, as well as plagiarism. It also includes serious or continuing non-compliance with government regulations pertaining to research, and retaliation against whistleblowers. It does not include honest errors or honest differences of opinion in the interpretation or judgment of data. Misconduct is an egregious violation of standards of integrity and is grounds for disciplinary action, including the termination of faculty and staff, dismissal of students, and revocation of degrees. Faculty, staff, and students all have the responsibility to understand the university's policy on misconduct in research and creative activities, to report perceived acts of misconduct of which they have direct knowledge of to the [Research Integrity Office](#), and to protect the rights and privacy of individuals making such reports in good faith.

2. Training and Permission for Safe and Ethical Use of Hazardous Materials, Animals, and Human Subjects

All research conducted at Michigan State University must be compliant with current regulations governing laboratory safety and the ethical treatment of both animals and human subjects. Use of vertebrate animals or humans in research requires both training and approval prior to the beginning of your research. For research involving animals see MSU's [Institutional Animal Care and Use Committee \(IACUC\) website](#). For research involving humans see the MSU [Human Research Protection Program website](#). Surveys, focus groups and related sociological/human dimensions research are considered research involving humans. In some special cases, where there is use of invertebrates in a human health application, approvals are also needed. The Graduate School will check whether you obtained the appropriate approvals at the time your thesis or dissertation is submitted. Failure to ensure that you receive the needed approvals will delay or prevent graduation.

Laboratory Safety: All graduate students who work in laboratories outside of regularly scheduled classes must have prior approval by a faculty member. Approval will not be given until you have completed Laboratory Safety Training offered by Environmental Health & Safety (EHS). You must certify that you have completed this training before working in any laboratory. Maintaining the department's compliance with safety regulations is the responsibility of all

students working in Entomology laboratories. To sign up for the training, you should go to the EHS [website](#). Follow the “Training” link to “Chemical Hygiene and Laboratory Safety.” This training program, as well as the required annual refreshers, are completed online.

Use of biological materials, pathogenic organisms, radioactive substances, or certain hazardous chemicals requires additional training. Your major professor will provide information about the required training in such cases. Regulations can be obtained from [EHS](#).

*Note: The Department of Entomology has its own Safety Training Checklist that must be filled out and on file stating what kind of safety training you need in order to be in compliance. These forms are provided to new students at Graduate Student Orientation, and they **MUST** be filled out with your major professor and returned to the Graduate Program Assistant before initiating any research.

Pesticides: Because pesticides are used in the MSU Greenhouse Complex, you must be trained under Worker Protection Standards (WPS) before you can access the complex with your ID card. Under WPS, a worker is defined as anyone entering a pesticide-treated area within 30 days of an application. Thus, most students entering fields to conduct research on campus or commercial farms also fall under WPS. [This website](#) has information on WPS training.

Students applying pesticides must take an examination and be certified as commercial applicators by the State of Michigan; this certification is valid for three years, then can be renewed by test or seminar credit. See the following Michigan Department of Agriculture & Rural Development (MDARD) [website](#) for details on the categories, examination process, and fees. Students handling, mixing, and loading pesticides need to be trained under WPS, but the MSU Environment Health and Safety (EHS) office requests that MSU employee handlers become certified as commercial applicators. If you are required to be certified, you should discuss with your major professor the appropriate categories and if/how the certification fee will be covered.

Human Subjects: Approval of research involving human subjects or materials of human origin is required before any such research begins. The application for approval must be submitted jointly by you and your major professor and the full review process of your application will typically require a minimum of one month to complete but will be longer when revisions are necessary. This application must be renewed annually and before each portion of research involving human subjects is performed. If you fail to obtain the appropriate approval(s) your thesis or dissertation containing such work will not be accepted, and you will not graduate.

Details of training requirements and applications are available at the [MSU Human Research Protection Program website](#).

Vertebrate Animals: MSU’s [Animal Care Program \(ACP\)](#) must approve the use of vertebrate animals in research, teaching, and outreach activities. Only faculty who are Principal Investigators on a project can submit an animal use form. Graduate students and others who

are active in certain activities on a project must be listed on the form and receive training. The full review process for Animal Use Forms typically requires 4-6 weeks. Once approved, the application is valid for three years. A brief annual review letter is sent to the Principal Investigators each year, which they are required to complete. Failure to return this annual review letter will lead to inactivation of ACP approval for animal use. Any significant changes in animal research activities must be processed and approved through ACP. Although the Principal Investigator is responsible for filing animal use forms, it is your responsibility to ensure that your research is covered under an approved and active project.

Shipping and Using Insects in Research: Permits are required for shipping insects and for using specific insect species in laboratories. Please see the [U.S. Department of Agriculture Animal and Plant Health Inspection Service](#) (APHIS) website for forms and procedures.

Collecting Insects: Be aware that collecting specific insect species or collecting insects in parks or on other public lands in the United States and abroad may require permits. Research the regulations that apply to any planned collecting activities and apply for any required permits before collecting.

3. Integrity in Teaching and Learning

Graduate students often find themselves playing dual roles of both teacher and learner over the course of their program. Each of these brings its own set of responsibilities for ethical conduct. It is, therefore, doubly important that you, as a graduate student, support academic honesty and the highest level of professional integrity in your own classrooms. The details of these responsibilities are summarized below and available as part of the [Spartan Life Student Handbook and Resource Guide](#).

Academic Honesty: The principles of truth and honesty are fundamental to a community of teachers and scholars. The Department of Entomology, in agreement with the university, expects that both faculty and students will honor these principles. You, as a graduate student, should adhere to the policies of protection of scholarship and grades, which specify that no student shall claim or submit the work of another as their own, complete any assignment or examination for another individual, or accept or use any materials containing questions for examinations or assignments without proper authorization. In addition, you should be familiar with the [All-University policy on Integrity of Scholarship](#), which includes disciplinary procedures in cases of suspected academic dishonesty.

Code of Teaching Responsibility: When you take on the formal responsibility of helping with the instruction of other students, whether as a grader, proctor, or teaching assistant, you accept a new set of obligations. Although the ultimate responsibility for course management resides with the instructor-of-record, the department expects you to adhere to the [Code of Teaching Responsibility](#). This code includes but is not limited to meeting classes regularly, informing students of methods used to determine their grades, returning graded work with sufficient promptness to enhance the learning experience, and being accessible to students through the use of a reasonable number of scheduled office hours. In addition, the department expects

graduate Teaching Assistants (TA's) to uphold the highest integrity in assigning graded work, and to protect the privacy of students under their authority. All TAs should attend The Graduate School's TA orientations and training.

Conflict of Interests in Educational Responsibilities: Graduate students in teaching roles must realize that there is a significant power differential between them and their students. The university recognizes that any employee, including teaching assistants, may undermine the trust needed for effective teaching if they allow the development of amorous or sexual relationships with their students. Go to the [All-University Policy on Consensual Amorous or Sexual Relationships with Students](#) for more information.

Section X. Student Conduct and Conflict Resolution

1. The [Graduate Student Rights and Responsibilities](#) describes graduate student rights and responsibilities as *"The graduate student, as a member of the academic community, has both rights and responsibilities. Within that community, the graduate student's most essential right is the right to learn. The University has a duty to provide for the graduate student those privileges, opportunities and protections that best promote the learning process in all its aspects. The graduate student 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"*. (Article 1.2) It is important to be familiar with codes of conduct and the rights and responsibilities presented in this document.

2. You share with faculty the responsibility to maintain an atmosphere conducive to teaching and learning, to maintain the integrity of scholarship and grades, and to maintain standards of professional behavior and relationships based on mutual trust and civility. Failure on your part to meet these responsibilities may result in dismissal from your program.

3. The procedure for resolving conflicts between you and your major professor, guidance committee, another faculty member, or department administrator, is outlined in [Graduate Student Rights and Responsibilities \(Article 5\)](#). The essential steps are as follows:

a. When conflicts arise, it is recommended that you first seek resolution and redress informally through discussion with the appropriate individual(s). You are encouraged to contact the Graduate Program Director and/or the Department Chairperson, if necessary, to help resolve the conflict. You are also encouraged to contact the University Ombudsperson who can provide independent and confidential advice (see #5).

b. If informal resolution is not possible, a formal written grievance may be sent to the Department Chairperson, who will convene a department hearing board that consists of equal numbers of faculty and graduate students, selected by their respective groups in

accordance with the department/school/program hearing procedures, as described in Appendix G.

c. The findings of the departmental hearing board may be appealed to the college-level hearing board.

4. Discrimination is prohibited at Michigan State University. If you feel you have been discriminated against based on age, race, religion, or sexual preference, you should discuss the situation immediately with the Graduate Program Director or the Department Chairperson. If the issue is not resolved within the department, you have the option of contacting the [Office of Civil Rights and Title IX Education and Compliance](#).

5. The Office of the University Ombudsperson. Conflicts, disagreements, and issues sometimes arise during a graduate program. If you find yourself in this situation and have no internal resources for resolving the issue, you may contact the Office of the University Ombudsperson. This office assists students, faculty, and staff in resolving university-related concerns. Such concerns include student-faculty conflicts; communication problems; concerns about the university climate; and questions about the options available for handling a problem, according to Michigan State University policy. The University Ombudsperson also provides information about available resources and student/faculty rights and responsibilities. The office operates as a confidential, independent, and neutral resource. It does not provide notice to the university - that is, it does not speak or hear for the university.

You may contact the Ombudsperson at any point during an issue when a confidential conversation or advice is needed. The Ombudsperson will listen to your concerns, provide information about university policies, help evaluate the situation, and assist in making plans to resolve the conflict.

Contact information:
Office of the University Ombudsperson
North Kedzie Hall, Room 129
354 Farm Lane
East Lansing, MI 48824
(517) 353-8830
ombud@msu.edu
<https://ombud.msu.edu/>

Section XI. Work-Related Policies

Graduate Assistantships

What is an Assistantship?

The primary purpose of a graduate assistantship is to provide financial support to a student while they perform specific duties. A graduate research assistant (RA) performs duties related to research; the duties may be related to your research project or a different project altogether. A graduate teaching assistant (TA) may teach a course, lab, or recitation section, prepare handouts, monitor examinations, grade examinations, or perform other instructional duties.

You must be registered as a full-time graduate student in the semester you receive a graduate assistantship. The percentage of your graduate assistantship appointment dictates the number of hours per week you are expected to work related to your assistantship position. You will be provided with a tuition waiver of up to 9 credits during fall and spring semesters; up to 5 credits during summer semester (when paid on an assistantship). Various taxes, fees, and late enrollment fees are not waived and are your responsibility. Unsatisfactory performance in course work or in performance of the duties associated with your graduate assistantship will result in termination.

Typically, grant funding supports Research Assistants.

Selection of Research Assistants

The Graduate Committee, Graduate Program Director, and Department Chairperson make the selection of graduate assistants, upon recommendations from faculty members. Graduate Assistant appointments are on a semester basis, with a maximum appointment of one year. Reappointments are contingent upon continued satisfactory academic progress and performance of duties, plus availability of funding.

By July 1st of each calendar year, the Department Chairperson will advise each graduate assistant in writing of the following for the next academic year:

- Your assistantship will be renewed, or;
- Your assistantship will be renewed if you meet certain specified conditions, or;
- If your assistantship will not be renewed based on the reasons indicated.

Teaching Assistants: The Entomology Department is currently provided teaching assistantships (TA's) as a direct result of Entomology faculty teaching one or more sections of the Center for Integrative Studies in General Science (CISGS) course, Integrative Studies in Biology, ISB 201. These assistantships exist because of the faculty who agree to teach these challenging courses, which usually have over 150 students enrolled.

If you are an International TA (ITA) who is not a native speaker of English, you are required to demonstrate that you meet a minimum standard of fluency in spoken English before you can be assigned teaching work that involves oral communication with undergraduate students. You can meet this requirement in one of the following ways:

- 1) Presenting a TOEFL iBT speaking section score of 27 or higher.
- 2) Receiving a score of 50 or higher on the [MSU Speaking Test](#).
- 3) Taking [AAE 451 or AAE 452](#) (ITA language support courses) AND receiving a score of 50 or higher on the [ITA Oral Interaction Test](#) (ITAOI).

ITA's who receive a waiver of the TOEFL or of other accepted tests of English proficiency for admission must also meet the requirement of proficiency in spoken English before they are assigned to teaching work that involves oral communication with undergraduate students. Those ITAs may use any of the options listed above to meet this requirement. Individual exceptions from these requirements (on a case-by-case basis in rare circumstances) will be considered by the Graduate School in consultation with the English Language Center (ELC) upon the request of the department, with the endorsement of the Associate Dean of CANR.

The policy of CISGS is that TAs are appointed for a full academic year, thus prospective TAs must be available to teach both fall and spring semesters. Faculty are responsible for requesting a graduate student be considered for an ISB TA.

ISB TAs will be allotted within the Department of Entomology based on the following priorities:

- Faculty who teach ISB sections are given the first opportunity to request and receive ISB TAs. These faculty members are the reason these assistantships are available to the department.
- The need to cover a funding shortfall with the understanding that ISB TA support should be used to bridge temporary gaps in funding. The ISB TA should not be the sole source of support for students over the life of their graduate programs.
- Students who have a special interest in gaining teaching experience.
- The prospective TA's communication skills.
- The individual faculty member's track record of timely degree completion and financial support for students.

The Department Chairperson's office will send out a request for proposals to faculty each spring semester to request consideration for a TA for the next academic year.

Graduate Assistantship Levels

Level 1: Must hold a bachelor's degree and have less than two semesters of experience as a graduate assistant.

Level 2: Must hold a master's degree or possess two semesters of experience as a graduate assistant. Advancement from Level 1 to Level 2 is routine on completion of 45 credits or two semesters of experience at Level 1. All Ph.D. graduate assistants are appointed at a Level 2.

Level 3: Ph.D. students who have successfully completed their doctoral comprehensive exams and have experience as a graduate RA/TE at Michigan State University, or equivalent. Students that have been appointed on a research assistantship for six semesters or more are also appointed at a Level 3. The advancement to the rank of a Level 3 graduate assistant does not provide an increase in pay in the Department of Entomology.

Stipend Amounts

The Department of Entomology pays all M.S. research assistants one stipend rate and all Ph.D. research assistants one stipend rate, regardless of the level of your assistantship appointment. The Department of Entomology Faculty, in consultation with the department’s Business Manager and Chairperson, determine the stipend amount for Department of Entomology research assistants.

The units that appoint teaching assistant positions determine stipend amounts for teaching assistantships.

[All stipend amounts fall within ranges established by the university.](#)

Payroll and Taxes

Graduate stipends are paid on a biweekly basis (every other Friday). If a payday falls on a holiday, you are paid the business day before. Paper checks are not issued at MSU, and you must sign up for either direct deposit or be issued a payroll debit card (PayCard). Refer to the [instructions on enrolling for either direct deposit or an MSU PayCard](#) for more information.

Stipends are subject to income taxes with few exceptions. The taxability of stipends is subject to review by the Internal Revenue Service. You are required to file a W-4 Withholding Allowance Certificate. Domestic students must fill out this form online through the [Enterprise Business System \(EBS\)](#). Your MSU Net ID and password are required to gain access to the system. In addition, you must also set up [two-factor authentication](#). International students must go to the Payroll Office in person to fill out a W-4 form. Scheduling an appointment is required and you can do by calling (517) 355-5010 or emailing CTLR.PAYROLL@ctrl.msu.edu.

Min/Max Credit Loads Per Semester for Graduate Assistants

Assistantship Appointment	Minimum Credit Load		Maximum Credit Load		# Credits Covered by Tuition Waiver	
	M.S.	Ph.D.*	M.S.	Ph.D.	M.S.	Ph.D.
¼- time	6	3	16	16	9	9
½-time	6	3	12	12	9	9
¾-time	3	3	8	8	9	9
Summer	3	3	None	None	5	5

* Doctoral students, both domestic and international, who have passed their Comprehensive Examinations may register for one credit and still be considered a full-time student.

Assistantship Workload, Duties, and Evaluations

The normal workload for assistantships is 10 hours/week for $\frac{1}{4}$ time, 20 hours per week for $\frac{1}{2}$ time, and 30 hours per week for $\frac{3}{4}$ time, averaged over the length of your appointment. Your assistantship supervisor (typically your major professor or, in the case of teaching assistants, a course instructor) should make assignments and/or duties clear to you. If there is a question of clarity or disagreement about assignments or duties, it is your responsibility, along with your assistantship supervisor, to develop a written agreement on your assignments and duties and have it signed by both of you. Your Annual Academic Progress Report should consider your performance as a graduate assistant, even if another faculty member (as in the case of a TA) supervised you.

For students paid on research assistantships – it is important to note that your research assistantship may not be related to your thesis/dissertation research. Most research assistantships are paid through grant dollars that are related to a specific research project. The work conducted on a research assistantship should be related to the project that supports it.

Student Health Insurance

Enrollment in MSU's Graduate Student Health Insurance Plan is automatic for graduate assistants. The length of coverage depends on the length of the appointment. Students with a nine-month appointment are covered for a full 12 months. You may also insure spouses/same-sex domestic partners and/or dependent children in the MSU graduate assistant healthcare plan. Further information regarding graduate assistant benefits is found through [Human Resources](#). You can also contact Human Resources directly at (517) 353-4434, (800) 353-4434, or SolutionsCenter@hr.msu.edu.

More information on graduate assistantship policies can be found through the [Graduate School](#).

Graduate Assistant Parking

Graduate Assistants can purchase a permit to park in Faculty/Staff lots south of the Red Cedar River. Permits are purchased online through [MSU Police](#). Parking permits must be renewed each semester you are employed on a graduate assistantship.

Graduate Assistant Parking for Students Supported on Fellowships

Fellowship recipients who receive an MSU Fellowship of \$1,000 or more per semester qualify for a graduate assistant parking permit for that semester. Qualifying fellowship recipients must call 517-355-8440 during business hours to purchase a graduate assistant permit over the phone.

Graduate Assistant Illness/Injury/Pregnancy/ Leave and Vacation Policy

If you are unable to fulfill the duties of a graduate assistantship appointment because of illness, injury, or pregnancy you should notify your major professor as soon as possible. Your major professor (and your assistantship supervisor, if different) will adjust (reduce, waive, or reschedule) your graduate assistant duties as physical circumstances reasonably dictate. If a total absence from your duties becomes necessary, Entomology will maintain the stipend of your appointment, provided you are still enrolled, for a period of two months or to the end of your appointment period, whichever occurs first. Continuation of your assistantship appointment is at the discretion of your major professor or assistantship supervisor.

If you adopt a child you are entitled to adoption leave of up to two (2) months, the first week of which you will be paid by your major unit and the balance of which will be unpaid, to commence on or before the date of adoption as determined by you.

If you become a parent by birth, and are not otherwise covered by a pregnancy leave policy, you are entitled to parental leave of up to two (2) months, the first week of which will be paid by the major unit and the balance of which will be unpaid, to commence on or before the date of birth as determined by you. Additional unpaid leave may be arranged on an ad hoc basis, as mutually agreed upon with your major professor and the Chairperson.

Eligibility for adoption leave or parental leave is determined under the following conditions:

- a) It must be completed within six (6) weeks of the birth or adoption of a child under the age of six (6).
- b) It may not extend beyond your previously scheduled appointment end date.
- c) It must be requested in writing no less than four (4) weeks prior to the scheduled start of your leave.

Any vacation time must be arranged in advance with your major professor.

Grief Absence Policy

For M.S. Plan A, M.S. Plan B, and Ph.D. students with research responsibilities, it is your responsibility to do the following:

- a) Notify your major professor and instructors of any courses in which you are enrolled in of the need for a grief absence in a timely manner, but no later than one week from your initial knowledge of the situation.
- b) Provide appropriate verification of the grief absence as specified by your major professor and instructor(s) if requested.
- c) Complete all missed work as determined in consultation with your major professor and instructor(s).

It is the responsibility of your advisor/major professor to:

- a) Determine with you the expected period of absence – it is expected that some bereavement processes may be more extensive than others depending on individual circumstances.

- b) Receive verification of the authenticity of a grief absence request upon your return.
- c) Make reasonable accommodation so that you are not penalized due to a verified grief absence. If employed as an RA or TE, you must also notify your employer if they are different from your major professor. Graduate teaching assistants (TAs) should refer to the bereavement policy in [GEU CBU Article 18](#).

Term Limits for Graduate Assistantships

The department follows MSU's maximum guidelines for assistantship support, 5 years for an M.S. degree and 8 years for a Ph.D. degree. Since most graduate research assistantships are dependent on outside grant funding, assistantship support is self-limiting. Before starting a program, you should talk with your major professor to understand the length of time assistantship funding will be available. Departmental responsibility for funding a graduate assistant may not extend beyond each semester's appointment.

Terminating a Graduate Assistantship

Your assistantship may be terminated under any of these circumstances:

- a) Completion of a Degree: When your degree is complete, you are no longer eligible to be appointed on a graduate assistantship and it ends. If you wish to terminate an assistantship prior to that time you should notify your major professor (and the assistantship supervisor if different) and the Graduate Program Assistant.
- b) Substandard Performance: The department may terminate your graduate assistantship for substandard performance or an inability to perform expected duties. Substandard performance may be brought to the attention of the Chairperson, typically through the annual *Academic Progress Report*. Academic difficulty will result in a review of your overall situation by the Graduate Program Director, and Chairperson.
- c) Violation of Policies: The department may terminate your assistantship in cases of violation of the General Student Regulations contained in the [Spartan Life](#) handbook, or the regulations outlined in the [Graduate Student Rights and Responsibilities](#) portion of the Spartan Life handbook. Your major professor or the Chairperson may initiate this action.
- d) Budgetary Constraints: The department may terminate assistantships for budgetary reasons. Should this be necessary, affected graduate assistants in good standing are given some priority for funding over new applicants, depending on their qualifications to perform the required activities.

Fellowships

Fellowships are not the same as graduate assistantships. Fellowships are offered through various sources, (e.g., Science to Achieve Results (STAR), NASA Graduate Student Research Program, NSF), and can offer the same benefits as an assistantship. However, many do not. If you receive a fellowship, communication is necessary between you, your major professor, the Business Manager, and the Graduate Program Assistant.

If you receive a fellowship, you are not automatically granted the in-state tuition rate (unless you are already a Michigan resident) and need to be aware that out-of-state tuition rates will

be applied to tuition charges paid from your fellowship. If you are a Ph.D. student and receive an externally funded fellowship worth at least \$24,000 (direct costs) you are eligible to be nominated for an “Out-of-State Tuition Waiver” from the Graduate School which will charge your fellowship the in-state tuition rate if you do not already qualify. The waiver can only be requested for the semesters you are supported by your fellowship. This policy applies only to fellowships funded through a competitive process by a U.S. or international institution/agency/foundation. Funds obtained through non-competitive processes (e.g., need-based fellowships) do not qualify. Only a limited number of students with external fellowships that meet the appropriate criteria are provided with these waivers each year. For more information and how to be considered for this waiver contact the Graduate Program Assistant.

The Dissertation Completion Fellowship (DCF) is a competitive fellowship provided by CANR and the Graduate School. This fellowship is intended to provide Ph.D. students financial support the final semester of their degree program so that recipients can focus on writing and completing their dissertation their final semester. If you are a Ph.D. student, you are only eligible to apply for this fellowship the semester your Ph.D. degree will be completed, and you will graduate. It is important to note that these fellowships do not cover tuition or health care.

Travel for University Business

Travel to professional meetings is highly encouraged. While MSU and the Department of Entomology have some funding for graduate student travel, most of your travel in support of your research is provided by your major professor. You should consult with your major professor on travel interests and opportunities, and work with them to agree on the amount of reimbursement you will receive and the account number(s) to use, prior to contacting the Entomology Business Office with information on your travel.

To ensure insurance coverage while you are in travel status for MSU business you are required to have a pre-trip travel authorization completed any time you travel out of the state of Michigan, whether or not you will be reimbursed for your trip. In addition, you should have a blanket pre-trip travel authorization for the state of Michigan on file; this provides you authorization to travel throughout Michigan to conduct MSU business (e.g., to visit research sites). Both forms are handled through the Entomology Business Office. Direct all travel related questions and requests for pre-trip authorizations through the department’s travel email, ENT.Travel@msu.edu.

Using an MSU Vehicle

Graduate students often use university-owned vehicles to get to field sites and professional meetings. However, strict guidelines exist for using university vehicles. To drive a university vehicle, you must:

- Have a valid unrestricted U.S. driver’s license, with proper class and endorsements listed for the vehicle(s) to be operated;
- Have a satisfactory driving record;
- Sign an Employee Driver Certification form annually.

Contact the Entomology Business Office if you have any questions about policies and procedures regarding university vehicle use at ENT.Travel@msu.edu.

Section XII. Entomology Department Business Office Procedures

You should receive approval from your major professor prior to using an MSU account number for purchases or reimbursements of any kind. Direct your questions about business policies and/or procedures to the Entomology Business Office in-person in Room 243 Natural Science Building, by email at ENT.BusinessOffice@msu.edu or by phone at (517) 355-4663.

You can also refer to the [MSU Manual of Business Procedures](#) through the Office of the Controller.

Reimbursement for Misc. Expenditures

Occasionally, you may make a miscellaneous small purchase for research using personal funds. To receive reimbursement for these expenses an **itemized** receipt must be provided that shows **proof of purchase** to the Entomology Business Office. MSU's Accounting Department will not reimburse for purchases unless an itemized receipt is attached. You also need to provide the Entomology Business Office with an account number and subaccount for your reimbursement. Do not purchase items with personal funds if it is possible to get the same item through University Stores or Spartan Marketplace using an MSU account number. Contact the Entomology Business Office at ENT.BusinessOffice@msu.edu with any questions.

University Stores

Many general use items and supplies (office, lab, and field) are available at a reduced price from MSU's University Stores. Materials may be purchased through the EBS Portal at Spartan Marketplace. All receipts for any University Stores purchases must be turned into the Entomology Business Office.

Building Access

Building access for the Natural Science Building, CIPS, the CIPS Insectary, and Giltner Hall is authorized through the Entomology Business Office. An MSU ID card is required. Submit an [Entomology Building Access/Key Request online form](#) to request access.

Key Policy

Entomology currently has a \$10 deposit for each room/lab key that is managed by the department. Keys for the Natural Science Building, CIPS, Food Safety and Toxicology, and Giltner Hall can be checked out from the Entomology Business Office. Only cash or personal checks are accepted to pay for key deposits and having exact change is encouraged. If you lose the keys you've checked out to any Entomology space your deposit is forfeited and must be repaid to receive another key(s). Be sure to turn in all university keys before leaving MSU. After you complete your program and return your keys, a check will be processed refunding you for your deposit. No cash will be given when keys are returned.

You should fill out an [Entomology Building Access/Key Request online form](#) in order to begin the process of getting the keys you need to Entomology space.

Reserving Conference Rooms

The Gordon Guyer Conference Room (244 Natural Science) is the department's conference room and can be reserved by students for business purposes (e.g., exams, special seminars) Contact the Entomology Business Office at ENT.BusinessOffice@msu.edu to find out the room's availability. The CIPS Building and the National Food Safety and Toxicology Building also have conference rooms available, which can be reserved by students. Links to how to reserve conference rooms in these buildings can be found on the Entomology SharePoint site.

Hutson Travel Funds

Funds to partially pay graduate student travel to professional meetings and conferences are available through the Entomology Hutson Endowment Fund. Funding is limited to one domestic trip per fiscal year (July 1 through June 30) and one international trip during your degree program in the Department of Entomology. Requests for domestic travel funds must be submitted no later than eight weeks prior to the travel date. International travel requests should be initiated as early as 6 months in advance.

The Hutson Travel Request form should be filled out and sent to the Graduate Program Assistant to initiate your request. If you have any questions, please contact the Graduate Program Assistant.

J. E. and Jean M. McPherson Graduate Student Travel Awards

J. E. and Jean M. McPherson established an endowment in the Department of Entomology to provide travel support to graduate students attending the annual Entomological Society of America meeting and the annual North Central Branch Entomological Society of America meeting. These are competitive travel awards. The Graduate Program Assistant sends a request for proposals approximately eight weeks prior to the meetings. All graduate students in the Department of Entomology are welcome to apply.

The Larry Gut Endowed Memorial Scholarship

Mrs. Kathleen Gut established the Larry Gut Memorial International Travel Award to honor the legacy of Dr. Larry Gut. Dr. Gut was a global leader in tree-fruit research involving crop-destroying moths and methods to reduce their impact. He traveled extensively to share his research with colleagues and growers around the world. The Graduate Program Assistant distributes calls for applications for this travel award to students at the beginning of fall and spring semesters.

The Olsen Entomology Scholarship

Dr. Larry Olsen was the Integrated Pest Management and Pesticide Safety Education Programs Coordinator, as well as the co-director of the North Central IPM Center and Enviro-weather programs. He established an endowment to provide either scholarship or travel support to

students studying in the area of IPM or sustainability. The Graduate Program Assistant distributes a call for applications for these funds once in the fall to receive travel support to attend the Annual Entomological Society of America Meeting and during spring semester as part of the department's annual award opportunities.

XIII. University Resources

The [Academic Programs Catalog](#) is the main source for general regulations, policies, procedures, and academic program requirements. This includes sections on:
[Graduate Education](#)
[Graduate Study in the College of Agriculture and Natural Resources](#)

MSU's Schedule of Courses is accessed by logging into the [Student Information System](#)

[Graduate Student Rights and Responsibilities \(GSRR\)](#) are available as part of the [Spartan Life Handbook](#).

[Guidelines for Graduate Student Mentoring and Advising](#).

Access to student records is governed by:

[The provisions of FERPA \(Family Educational Rights and Privacy Act\)](#).
[MSU's Access to Student Information](#).

[Environmental Health and Safety \(EHS\)](#) provides important safety training that is necessary for you to work in a laboratory environment.

The [MSU IT Service Desk](#) provides assistance with technical support, including issues that may arise with your MSU NetID.

Degree-Related Information

The [Graduate School](#) has a complete website that includes:
[Graduate Employee Union Contract Handbook](#).
[Thesis/Dissertation Formatting Guide](#).

Academic Information

[MSU Writing Center](#) offers writing consultation to graduate as well as undergraduate students for papers, abstracts, cover letters, research and conference papers, theses, and dissertations. Contact them at writing@msu.edu to schedule an appointment.

[Office for International Students and Scholars \(OISS\)](#) can answer questions regarding academics, immigration, social, health, employment, and financial matters for international students at MSU.

[Resource Center for Persons with Disabilities](#) provides services for persons with disabilities.

Career Related Information

[Center for Community Engaged Learning](#) links students with community service and volunteer opportunities. Email them at communityengagedlearning@vps.msu.edu if you have questions.

[Career Services Network](#) assists students in career advising and employment upon graduation. Call (517) 355-9510 or email CareerServices@csp.msu.edu to schedule an appointment.

[Professional Development](#) information from The Graduate School guides students to the resources they need for planning and professional development.

Health, Family, & Student Services

[Graduate Student Life](#) provides contact information to several different on-campus resources to assist graduate students personally and professionally.

[MSU Student Food Bank](#) supplies supplemental food and other necessities to students and their families in need.

[MSU Safe Place Relationship Violence and Stalking Program](#) provides advocacy, shelter, counseling, and more to survivors of violence and their minor children. All support services are free and confidential. They can be reached at (517) 355-1100 or noabuse@msu.edu.

[The Gender and Sexuality Campus Center](#) is a student-centered campus resource that supports LGBTQIA2S+ member of the MSU community. You can reach them at (517) 353-9520 or at gsc@msu.edu.

[Graduate Assistant Health Insurance](#) is offered to graduate assistants as part of their benefits package. Questions on health insurance should be directed to the HR Solutions Center at (517) 353-4434 or SolutionsCenter@hr.msu.edu.

[MSU Counseling & Psychiatric Services \(CAPS\)](#) provides confidential professional counseling and psychological services to students. Call (517) 355-8270 to schedule an appointment.

[Recreational Sports and Fitness Services](#) provides students access to equipment and facilities in the intramural facilities located in IM-West, IM-East, and IM-Circle.

[Olin Health Center](#) provides general health services, health screening and testing, vaccines, and a pharmacy. Appointments are required. Call (517) 353-4660 to schedule.

The [Travel Clinic](#) provides advice, immunizations, and preventative medication for foreign travel.

APPENDIX A

TIMELINES FOR:

M.S. PLAN A DEGREE

M.S. PLAN B DEGREE

Ph.D. DEGREE

APPENDIX A

Graduate Degree Timeline – Master’s Degree, Plan A

<p>YEAR 1</p>	<ul style="list-style-type: none"> • First Semester - Set up your guidance committee and have your first meeting. Discuss and complete the "Master’s Student First Committee Meeting Checklist". • First Semester – Submit your guidance committee and course information for your degree into GradPlan for approval. • First Semester – Complete the required initial RECR Training (Appendix F). • Second Semester – Complete the 6 hours of required discussion-based training for RECR (Appendix F). Note: You can fulfill this requirement by taking ENT 802- Nature and Practice of Science or ENT 804-Scientific Communication. • Second Semester – Turn in your Annual Record of Academic Progress Report to Graduate Program Assistant by February 15.
	<p>*Summer semester – conduct research and take courses/credits if necessary.</p>
<p>YEAR 2</p>	<ul style="list-style-type: none"> • First Semester – Meet with your Guidance Committee to discuss your progress; continue taking courses/credits; continue with your research. • Second Semester – Complete Year 2 of the required RECR Training (Appendix F). • Second Semester – Continue taking courses/credits that have not yet been completed. • Second Semester - Turn in your Annual Record of Academic Progress Report to Graduate Program Assistant by February 15. • Second Semester – write and orally defend your thesis with a seminar to the Department; submit your thesis to Graduate School when any revisions have been approved by your guidance committee. **

** If your degree is not completed by the end of year 2, continue meeting with your Guidance Committee, conducting research, and writing your thesis and planning for your oral defense.

Note – there is a 5-year time limit for completion of MS degrees.

APPENDIX A

Graduate Degree Timeline – Master’s Degree, Plan B

<p>YEAR 1</p>	<ul style="list-style-type: none"> • First Semester - Set up your guidance committee and have your first meeting. Discuss and complete the "Master’s Student Frist Committee Meeting Checklist". • First Semester – Submit your guidance committee and course information for your degree into GradPlan for approval. • First Semester – Complete the required initial RECR training (Appendix F). • Second Semester – Complete the required 6 hours of discussion-based training for RECR (Appendix F). Note: You can fulfill this requirement by taking ENT 802-Nature and Practice of Science or ENT 804-Scientific Communication. • Second Semester – Turn in your Annual Record of Academic Progress Report to Graduate Program Coordinator by February 15.
	<p>*Summer semester – conduct research and take courses/credits if necessary.</p>
<p>YEAR 2</p>	<ul style="list-style-type: none"> • First Semester – Meet with your guidance committee to discuss your progress; continue taking courses/credits to complete your MS degree credit requirements; continue with research. • Second Semester – Continue taking courses/credits that have not yet been completed. • Second Semester - Turn in your Annual Record of Academic Progress Report to Graduate Program Assistant by February 15. • Second Semester – Complete your research project and give an oral presentation on your project to the Department. **

** If your degree is not completed by the end of year 2, continue meeting with guidance committee, conducting research, writing your research project, and planning for your oral presentation.

Note – there is a 5-year time limit for completion of MS degrees.

APPENDIX A

Graduate Degree Timeline – PhD Degree

<p>YEAR 1</p>	<ul style="list-style-type: none"> • <u>First Semester</u> - Set up your guidance committee and have your first meeting • <u>First Semester</u> – Submit your guidance committee and course information for your degree into GradPlan for approval. • <u>First Semester</u> – Complete the required initial RECR training (Appendix F). • <u>First or Second Semester</u> – Finish writing your research proposal and take your “Research Proposal Defense”. • <u>Second Semester</u> – Complete the required 6 hours of discussion-based training for RECR (Appendix F). Note: You can fulfill this requirement by taking ENT 802-Nature and Practice of Science or ENT 804-Scientific Communication. • <u>Second Semester</u> – Turn in your Annual Record of Academic Progress Report to Graduate Program Assistant by February 15.
	<p>*Summer semester – conduct research and take courses/credits if necessary. If exams are planned during summer semester, you must be registered in at least one credit. Contact the Graduate Program Assistant for details or with questions.</p>
<p>YEAR 2</p>	<ul style="list-style-type: none"> • <u>First Semester</u> – Meet with your Guidance Committee to discuss your progress; continue taking courses/credits to complete your PhD degree requirements; continue with your research. • <u>First Semester</u> – DEADLINE – You must complete your Research Proposal Defense no later than this semester if it has not been completed. • <u>First Semester</u> – Complete Year 2 of the required RECR training (Appendix F). • <u>Second Semester</u> – Continue taking courses/credits that have not been completed. • <u>Second Semester</u> - Turn in your Annual Record of Academic Progress Report to Graduate Program Assistant by February 15.

APPENDIX A

	<p>*Summer semester – conduct research and take courses/credits if necessary. If exams are planned during summer semester, you must be registered in at least one credit. Contact the Graduate Program Assistant for details or with questions.</p>
<p>YEAR 3</p>	<p>First Semester – Meet with your Guidance Committee to discuss your progress; complete any needed courses.</p> <p>First Semester – Complete year 3 of the required RECR refresher training (Appendix F).</p> <p>First/Second Semester – Schedule and complete your Comprehensive Exams*</p> <p>Second Semester – Turn in your Annual Record of Academic Progress Report to the Graduate Program Assistant by February 15</p> <p>Second Semester – Write and orally defend your dissertation with a seminar to the Department. Submit your dissertation to the Graduate School once any needed revisions have been approved by your guidance committee**</p>

*Comprehensive Examinations must be passed within five years of entering MSU and at least one semester before your oral defense of your dissertation.

**If your degree is not completed by end of year 3, continue meeting with your guidance committee, conducting research, writing your dissertation, and planning for your oral defense.

Note – there is an 8-year time limit for completion of PhD degrees.

RECR REQUIREMENTS – RECR training and refreshers are required each year until you complete your Ph.D. degree. See Appendix F.

APPENDIX B

SELECTED FORMS PERTAINING TO GRADUATE PROGRAMS

The following forms are used in the M.S. program and are found in this section:

Master's Student First Committee Meeting Checklist
M.S. Evaluation Rubric (Plan A)
Record of Completion - Master's Degree (both Plan A and Plan B)

The following forms are used in the Ph.D. program and are found in this section:

Record of Examination-Research Proposal Defense
Ph.D. Evaluation Rubric – Research Proposal Defense
MSU Record of Comprehensive Examinations
Ph.D. Evaluation Rubric – Dissertation Defense
MSU Record of Dissertation and Oral Examination
Record of Completion - Ph.D. Degree

The following form are found in this section for both degrees:

Termination Checklist

Master's Student First Committee Meeting Checklist

Student Name: _____

Date: _____

- Required coursework was discussed. This coursework will be entered into GradPlan by the student. The submission of GradPlan is a degree requirement.

- The Department of Entomology's Master's Degree Rubric was discussed (Plan A only). This rubric will be filled out at the student's master's defense.

- The student's master's thesis outline was discussed (Plan A only).

- The student will schedule an appointment with the Museum Curator, Sarah Smith, to discuss the voucher specimens that will be turned into the A.J. Cook Arthropod Museum. Contact Dr. Smith at smith462@msu.edu. Turning in voucher specimens is a degree requirement.

- Responsible and Ethical Conduct of Research (RECR) requirements were discussed. Being RECR compliant is a degree requirement.

Student Signature:

Major Professor Signature:

Guidance Committee Member:

Guidance Committee Member:

Guidance Committee Member:

ENT Graduate Program Learning Outcomes

The Department of Entomology at Michigan State University is committed to developing the disciplinary and research subject expertise of our graduate students along with the skills needed for their professional success. This will be achieved through a combination of formal classes, research training and experience, classroom teaching, professional presentations, and one-on-one mentoring by their graduate advisor with support from their graduate guidance committee. Students are expected to develop into experts in their chosen field of research, with the skills needed to succeed in their future professional careers.

To ensure that this vision of the graduate program is achieved, a series of learning outcomes has been developed. These combine broad skills that we expect all students to develop during their time in our department, along with the subject-specific knowledge that is relevant to their chosen research topic. Expectations for Masters (Plan A) and Ph.D degrees are different and described separately in this document. Students will be evaluated by their graduate guidance committee to determine how well they are meeting the learning outcomes. This document provides an overview of the learning objectives and outcomes, along with rubrics that will be used to assess student progress.

ENTOMOLOGY GRADUATE PROGRAM LEARNING OUTCOMES

M.S. Plan A

Disciplinary Knowledge and Application

- 1. Learning Outcome:** Demonstrate broad knowledge across an array of entomological sub-fields of the student's choosing.
Assessed by: Successful completion of: ENT 404 or equivalent; 6 credits in ENT courses.
- 2. Learning Outcome** Demonstrate expert knowledge in a primary sub-field of Entomology.
Assessed by: Develop research proposal for student's guidance committee meeting; Complete thesis and M.S. defense, evaluated by guidance committee.
- 3. Learning Outcome:** Integrate and apply expert knowledge to investigate questions, problems or issues in entomology.
Assessed by: Develop research proposal for student's advisory committee meeting; Complete thesis and M.S. defense, evaluated by guidance committee.

Inquiry Skills

- 1. Learning Outcome:** Ability to generate and support hypotheses, arguments and recommendations in entomology using appropriate evidence.
Assessed by: Complete thesis and MS defense, evaluated by guidance committee.
- 2. Learning Outcome:** Demonstrate expert skills and understanding of data management, analysis and visualization relevant for the student's topic of study.
Assessed by: Complete thesis and MS defense, evaluated by guidance committee.
- 3. Learning Outcome:** Demonstrate an understanding of Responsible Conduct of Research and apply this to their professional activities.
Assessed by: Successful completion of RCR training; IRB approval if appropriate; Complete thesis and MS defense, evaluated by guidance committee.

Communication Skills

- 1. Learning Outcome:** Develop abilities and skills for writing proposals including a budget to fund research or other scholarly activity.
Assessed by: Develop research proposal for student's guidance committee; Internal or external grant/fellowship proposal submission.
- 2. Learning Outcome:** Orally present and defend scientific data and information to scholarly, professional, and/or lay audiences.

Assessed by: Oral presentation of research proposal to guidance committee; MS defense, evaluated by guidance committee; Presentation(s) at scientific and/or extension conference, workshop or meeting.

3. Learning Outcome: Create scholarly and professional written documents to communicate scientific information.

Assessed by: MS Thesis evaluated by guidance committee.

EVALUATION RUBRIC: Thesis Defense Exam (M.S. Plan A)

Candidate Name: _____

Date: _____

Major Professor: _____

Title of Thesis: _____

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. Depth of understanding of the research topic and its significance: States the research problem clearly, providing motivation for undertaking the research.			
2. Breadth of understanding of principles across the student's discipline: Demonstrates some knowledge of relevant literature and aware of previous work on the specific research problem/s.			
3. Importance of research: Demonstrates the potential importance and value of the research to the area of study.			
4. Approach: Applies appropriate research methods to address the topic and describes them clearly.			
5. Results: Analyzes data appropriately and interprets research results to test hypotheses and develop conclusions.			
6. Quality of communication: Communicates research clearly in written and oral form.			
7. Critical thinking: Demonstrates ability to evaluate research critically in the context of existing knowledge.			
8. Broader impact: Demonstrates some awareness of broader implications of the research.			

Signatures of Student's Guidance Committee:

Committee Chair: _____

Add additional comments:

RECORD OF COMPLETION -- MASTER'S DEGREE

Michigan State University
Department of Entomology

Student Name _____

This is to certify that:

1. The above names student has completed or is completing all courses prescribed by the Guidance Committee. The committee has approved any course changes.

Yes No

2. An oral examination was completed on (date) _____
The Committee decided that the candidate:

Passed the examination
 Did not pass the examination. Any comments and recommendations are given under item 4 below.

3. The Master's thesis titled _____

has/has not been found worthy of acceptance on (date) _____

4. Comments and recommendations of Committee members: _____

5. Approved by the Guidance Committee: _____

Chairperson, Guidance Committee

Dept.

Dept.

Dept.

Dept.

Chairperson, Department of Entomology

Date

(over)

6. Items turned in:

Curator	<input type="checkbox"/>	Voucher Specimens _____	Initial/Date
Major Prof.	<input type="checkbox"/>	Equipment _____	Initial/Date
Business Ofc.	<input type="checkbox"/>	Keys _____	Initial/Date

Chairperson, Department of Entomology

Date

RECORD OF EXAMINATION
RESEARCH PROPOSAL DEFENSE
Michigan State University - Department of Entomology

Name _____
Last First Middle Student No.

The Research Proposal Defense (primarily the oral presentation and defense of the Dissertation Proposal) has been conducted by the Guidance Committee.

The proposed dissertation subject or title is:

- Proposal approved
- Proposal Satisfactory, but another meeting needed; comments on reverse.
- Proposal Unsatisfactory - major modifications needed; another "Record of Examination" must be completed whenever the Qualifying Examination is retaken. Comments on reverse.
- Failed. May not be retaken. Reason:

Date _____

Guidance Committee Chairperson

_____ Dept. _____ Dept. _____

_____ Dept. _____ Dept. _____

_____ Dept. _____

Department Chairperson or
Department Representative

Original: Permanent Student File
Copies: Student
Major Professor

ENT Graduate Program Learning Outcomes

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To ensure that this vision of the graduate program is achieved, a series of learning outcomes has been developed. These combine broad skills that we expect all students to develop during their time in our department, along with the subject-specific knowledge that is relevant to their chosen research topic. Expectations for Masters (Plan A) and Ph.D degrees are different and described separately in this document. Students will be evaluated by their graduate guidance committee to determine how well they are meeting the learning outcomes. This document provides an overview of the learning objectives and outcomes, along with rubrics that will be used to assess student progress.

ENTOMOLOGY GRADUATE PROGRAM LEARNING OUTCOMES Ph.D.

Disciplinary Knowledge and Application

- 1. Learning Outcome:** Demonstrate broad knowledge across an array of entomological sub-fields of the student's choosing.
Assessed by: Successful completion of: ENT 404 or equivalent plus 9 credits in ENT courses, and written and oral comprehensive exams, evaluated by student's guidance committee.
- 2. Learning Outcome** Demonstrate expert knowledge in a primary sub-field of Entomology
Assessed by: Develop, present and defend research proposal to student's guidance committee, Successful completion of written and oral comprehensive exams, completed dissertation and PhD defense, evaluated by guidance committee; One or more research publications developed.
- 3. Learning Outcome:** Integrate and apply expert knowledge to investigate questions, problems or issues in entomology.
Assessed by: Develop, present and defend research proposal to student's guidance committee, Dissertation and PhD Defense, evaluated by guidance committee.

Inquiry Skills

- 1. Learning Outcome:** Ability to generate and support hypotheses, arguments and recommendations in entomology using appropriate evidence.
Assessed by: Develop, present and defend research proposal to student's guidance committee, Dissertation and PhD defense, evaluated by guidance committee.
- 2. Learning Outcome:** Demonstrate expert skills and understanding of data management, analysis and visualization relevant for the student's topic of study.
Assessed by: Written and oral comprehensive exams; Dissertation and PhD defense, evaluated by guidance committee, one or more research publications developed
- 3. Learning Outcome:** Demonstrate an understanding of Responsible Conduct of Research and apply this to their professional activities.
Assessed by: Successful completion of RCR training; IRB approval if appropriate; Complete dissertation and PhD defense, evaluated by guidance committee.

Communication Skills

- 1. Learning Outcome:** Develop abilities and skills for writing proposals including a budget to fund research or other scholarly activity.
Assessed by: Develop, present and defend research proposal to student's guidance committee, Develop and submit grant/fellowship proposal for internal or external funding.

2. **Learning Outcome:** Orally present and defend scientific data and information to scholarly, professional, and/or lay audiences.

Assessed by: Develop, present and defend research proposal to student's guidance committee, oral comprehensive and defense exams, evaluated by guidance committee, Presentation(s) at scientific and/or extension conferences, workshops or meetings.

3. **Learning Outcome:** Create scholarly and professional written documents to communicate scientific information.

Assessed by: Written comprehensive exam; Dissertation, evaluated by guidance committee; Development of one or more manuscripts suitable for submission to scientific journal(s).

EVALUATION RUBRIC: Research proposal defense (Within 12 months of the onset of the Ph.D. program)

Candidate Name _____

Date _____

Major Professor _____

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. Depth of understanding of the research topic and its significance: States the research issue clearly, providing motivation for undertaking the research			
2. Breadth of understanding of principles across the student's discipline: Demonstrates sound knowledge of relevant literature and previous work on the specific research topic/s			
3. Impact of Proposed Research: Demonstrates the potential value of the research to advancing knowledge within the area of study			
4. Approach: Proposes appropriate research methods/tools for the research topic and can effectively describe the methods/tools			
5. Analysis ability. Presents an appropriate plan for analysis of data and interpretation of results			
6. Quality of communication: Communicates research proposal clearly and professionally in written and oral form			
7. Critical thinking: Demonstrates capability for independent research in the area of study, preparedness in core disciplines relevant to research, and ability to complete the proposed research			
8. Broader impact: Demonstrates awareness of broader implications of the proposed research.			

Signatures of Student's Guidance Committee

Committee Chair:

Add additional comments:

RECORD OF COMPREHENSIVE EXAMINATIONS
for
DOCTORAL DEGREE AND EDUCATIONAL
SPECIALIST DEGREE CANDIDATES

Check if this is a re-examination because of expired time limits.

Department of _____

Student's Name _____ Student Number _____
Last, First Middle Initial

Term and Year of First Course Counted towards this Degree _____

Result of Written Comprehensive Examinations:

<u>Field</u>	<u>Examiner(s)</u>	<u>Examination Date (MM-DD-YY)</u>	<u>Passed or Failed</u>
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Result of Oral Comprehensive Examinations:

<u>Field</u>	<u>Examiner(s)</u>	<u>Examination Date (MM-DD-YY)</u>	<u>Passed or Failed</u>
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OVERALL PASS or FAIL? _____

Signed _____ Date _____
Chairperson of Examination Committee

Signed _____ Date _____
Chairperson of Department

Signed _____ Date _____
Dean of College

ENT Graduate Program Learning Outcomes

The Department of Entomology at Michigan State University is committed to developing the disciplinary and research subject expertise of our graduate students along with the skills needed for their professional success. This will be achieved through a combination of formal classes, research training and experience, classroom teaching, professional presentations, and one-on-one mentoring by their graduate advisor with support from their graduate guidance committee. Students are expected to develop into experts in their chosen field of research, with the skills needed to succeed in their future professional careers.

To ensure that this vision of the graduate program is achieved, a series of learning outcomes has been developed. These combine broad skills that we expect all students to develop during their time in our department, along with the subject-specific knowledge that is relevant to their chosen research topic. Expectations for Masters (Plan A) and Ph.D degrees are different and described separately in this document. Students will be evaluated by their graduate guidance committee to determine how well they are meeting the learning outcomes. This document provides an overview of the learning objectives and outcomes, along with rubrics that will be used to assess student progress.

ENTOMOLOGY GRADUATE PROGRAM LEARNING OUTCOMES Ph.D.

Disciplinary Knowledge and Application

- 1. Learning Outcome:** Demonstrate broad knowledge across an array of entomological sub-fields of the student's choosing.
Assessed by: Successful completion of: ENT 404 or equivalent plus 9 credits in ENT courses, and written and oral comprehensive exams, evaluated by student's guidance committee.
- 2. Learning Outcome** Demonstrate expert knowledge in a primary sub-field of Entomology
Assessed by: Develop, present and defend research proposal to student's guidance committee, Successful completion of written and oral comprehensive exams, completed dissertation and PhD defense, evaluated by guidance committee; One or more research publications developed.
- 3. Learning Outcome:** Integrate and apply expert knowledge to investigate questions, problems or issues in entomology.
Assessed by: Develop, present and defend research proposal to student's guidance committee, Dissertation and PhD Defense, evaluated by guidance committee.

Inquiry Skills

- 1. Learning Outcome:** Ability to generate and support hypotheses, arguments and recommendations in entomology using appropriate evidence.
Assessed by: Develop, present and defend research proposal to student's guidance committee, Dissertation and PhD defense, evaluated by guidance committee.
- 2. Learning Outcome:** Demonstrate expert skills and understanding of data management, analysis and visualization relevant for the student's topic of study.
Assessed by: Written and oral comprehensive exams; Dissertation and PhD defense, evaluated by guidance committee, one or more research publications developed
- 3. Learning Outcome:** Demonstrate an understanding of Responsible Conduct of Research and apply this to their professional activities.
Assessed by: Successful completion of RCR training; IRB approval if appropriate; Complete dissertation and PhD defense, evaluated by guidance committee.

Communication Skills

- 1. Learning Outcome:** Develop abilities and skills for writing proposals including a budget to fund research or other scholarly activity.
Assessed by: Develop, present and defend research proposal to student's guidance committee, Develop and submit grant/fellowship proposal for internal or external funding.

2. **Learning Outcome:** Orally present and defend scientific data and information to scholarly, professional, and/or lay audiences.

Assessed by: Develop, present and defend research proposal to student's guidance committee, oral comprehensive and defense exams, evaluated by guidance committee, Presentation(s) at scientific and/or extension conferences, workshops or meetings.

3. **Learning Outcome:** Create scholarly and professional written documents to communicate scientific information.

Assessed by: Written comprehensive exam; Dissertation, evaluated by guidance committee; Development of one or more manuscripts suitable for submission to scientific journal(s).

EVALUATION RUBRIC: Dissertation Defense Exam (Ph.D.)

Candidate Name: _____

Date: _____

Major Professor _____

Title of Dissertation: _____

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. Depth of understanding of the research topic and its significance: States the research problem clearly and explains motivation for undertaking the research			
2. Breadth of understanding of principles across the student's discipline: Demonstrates expert knowledge of relevant literature and previous work on the specific research problem/s			
3. Importance of research: Demonstrates the importance of the research to the area of study and/or the potential value of the research			
4. Approach: Applies appropriate research methods to address the topic and describes them clearly			
5. Results: Analyzes data appropriately and interprets research results thoroughly to test hypotheses and develop conclusions			
6. Quality of communication: Communicates research clearly in written and oral form			
7. Critical thinking: Demonstrates ability to evaluate research critically in the context of existing knowledge			
8. Broader impact: Demonstrates expert awareness of and is able to articulate broader implications of the research.			
9. Publications: Journal or conference publications have resulted (or are anticipated) from this research			

Signatures of Student's Guidance Committee

Committee Chair: _____

Add any comments:

RECORD OF DISSERTATION AND ORAL EXAMINATION REQUIREMENTS FOR DOCTORAL DEGREE CANDIDATE

Department of: _____

Student's Name: _____

1. Dissertation Title: _____

2. Dissertation has been: Accepted Rejected Accepted subject to revisions (beyond minor editorial changes) required by the Committee.

3. Oral examination in defense of the dissertation was conducted on: _____
The student Passed Date
 Failed Reason: _____

4. Dissenting opinions and signatures of dissenting examiners, if any: _____

5. Subject to the satisfactory completion of other requirements, this student is recommended for the degree Doctor of:
 Philosophy Education Musical Arts

Signatures of Guidance Committee Members:

Printed names of Guidance Committee Members:

Chairperson of Guidance Committee

Date

6. Major revisions required: _____

7. Revisions, if any, approved: _____
Chairperson of Guidance Committee Date

Approved: Department Chairperson: _____

Associate/Assistant Dean: _____

RECORD OF COMPLETION – PhD DEGREE

Michigan State University
Department of Entomology

Student Name _____

This is to certify that:

1. The above named student has completed all courses prescribed by the Guidance Committee. The committee has approved any course changes.

Yes No

2. The PhD dissertation titled:

_____ has/ has not been found worthy of acceptance on (date) _____

4. The final oral examination was completed on (date) _____
The Committee decided that the candidate:

Passed the examination.

Did not pass the examination.

5. Comments and recommendations of Committee members:

6. The “Record of Dissertation and Oral Exam” form has been signed by the Guidance Committee:

Yes No

7. Items turned in:

Curator	Voucher Specimens _____	Initial/Date
Major Prof.	Equipment _____	Initial/Date
Business Ofc.	Keys _____	Initial/Date

Chairperson, Department of Entomology

Date

The following checklist should be completed when someone terminates (by resignation, involuntary termination, retirement, reaching appointment end-date, or graduating) his/her MSU employment or otherwise separates from a department (by transfer, layoff, extended leave of absence). Not all items may apply to a given individual. For example, in cases where a person terminates one type of appointment but begins another, some checklist items will not apply. Departments are to give a copy of the employee section of the checklist to faculty, staff and graduate assistants who will be terminating or separating from the department; discuss any items requiring resolution; complete the unit section of the form; and retain /distribute the completed checklist as described on page 4. Contacts are listed for topics that may require special assistance.

EMPLOYEE ACTIONS BY LAST WORKING DAY

PERSONAL

Done N/A

- 1. Remove personal items from work areas.
- 2. Provide forwarding address to your department.
- 3. MSU HR will send you a letter about termination/continuation of applicable benefit programs. Call 353-4434 if you have questions about the letter.
- 4. If relocating, update home address in ESS.
- 5. If you wish to complete an exit survey and/or interview if you are terminating from the University call Human Resources at 353-4434, or Academic Human Resources at 353-5300.

RETURN ALL UNIVERSITY PROPERTY

- 1. Keys (building, office, desk, files, vehicles, lockers, etc.)
- 2. Parking decal/gate card (forward to Department of Police and Public Safety (DPPS) so parking deduction is stopped).
 - a. Official retirees who will need continued parking privileges should contact DPPS for a retiree parking decal.
- 3. Computers/laptops and other peripheral equipment (e.g., printers, cameras)
- 4. Cellular phones/pagers
- 5. Records (documents, files, correspondence, etc.)
- 6. Research/data notebooks (you may retain a copy)
- 7. Patient/client files
- 8. Credit/procurement/travel/calling cards, and related receipts
- 9. Petty cash fund
- 10. Library books, CD texts, periodicals
- 11. Access cards (e.g., to the University Research Containment Facility, Bio-Physical Sciences, Veterinary Teaching Hospital)
- 12. Radiation Detection Badges
- 13. Uniforms/gear/tools/instruments/job accessories

FINANCIAL

Settle outstanding accounts, including:

Done N/A

- 1. Charges owed to your department
- 2. Charges owed to other departments (e.g., Library, Parking, Student Accounts)
- 3. Reimbursements owed to you (e.g., travel expenses)

If you will be continuing on the payroll in a different capacity (e.g., on-call), request discontinuation of payroll deductions by contacting the appropriate office(s):

- 1. Union Dues (Call appropriate union and Payroll)
- 2. Development Fund
- 3. Flexible Spending Accounts (Dependent Care, Health Care)
- 4. MSU Community Charitable/United Way Campaign

ELECTRONIC RECORDS

- 1. Retrieve or delete any personal files/information on your office/home PC, office/department server, lab server, central file space (AFS), etc.
- 2. Retrieve any University email files, or files on other University email servers and systems, that you wish to retain. Note:
 - a. Files are purged when your email account is closed.
 - b. You must have the permission of the appropriate unit administrator to copy any University files or records.
 - c. MSU retirees are eligible to continue their MSU email accounts indefinitely; students may continue using their accounts for two years after graduation. If you will have a new email address, make arrangements for your email to be forwarded.
- 3. Return (transfer, copy, etc.) to the appropriate unit and/or University administrator(s) any unit or University data files, electronic documents and records, etc. that are stored on your personal work PC or in your personal server file spaces.
- 4. If you possess sole access rights to an administrative database, software application, information system, etc., that is necessary for program or unit administration or operations, transfer the passwords to the appropriate unit administrator, or arrange for a unit administrator to be given the access needed to assure continued operations.
- 5. Delete or return any University owned/licensed software that is contained on a home computer. For assistance, contact the technology staff in your college and/or unit. For MSU/email matters, contact IT Services Support Desk, (432-6200).

MISCELLANEOUS

- 1. If you were responsible for any laboratory or hazardous chemicals, gas cylinders, biological materials (e.g., animal tissue, diagnostic specimens, microorganisms, cultures), biohazardous materials (e.g., infectious substances and CDC Select Agents), controlled substances, radiological materials and/or hazardous wastes, provide evidence of consultation with Environmental Health & Safety (EHS) to your supervisor regarding the disposition of these materials.
- 2. If you were responsible for patients or other clients, make arrangements with your supervisor for others to assume their care/service.
- 3. Foreign National employees should contact the Office of International Students and Scholars at 353-1720 to determine if there are other requirements related to their status.

UNIT ADMINISTRATOR ACTIONS

TERMINATION PROCESSING

Done N/A

- 1. Confirm final paid leave usage for support staff.
- 2. Complete Termination Form in EBS Portal.
- 3. Obtain the employee's forwarding address; share with units needing future contact, e.g., Alumni, Development, Office of Intellectual Property.
- 4. Confirm accuracy of final check/deposit notification; mail to employee.
- 5. Confirm all time off has been entered and approved in EBS.
- 6. If the employee was designated as an Emergency Action Team member or as the Environmental Steward for your unit, please name a replacement and communicate the changes as necessary. _____

EQUIPMENT/PROPERTY

- 1. Arrange for the return of University property (see examples listed in employee section).
- 2. Return of Library resources.
- 3. Determine applicable equipment reassignment (e.g., computers, vehicles, etc.).

FINANCIAL

- 1. Check for personal charges on credit cards, personal calls on phones, etc. Obtain reimbursement by check made payable to MSU. Note: These amounts cannot be payroll deducted without signed authorization by the employee.
- 2. Obtain petty cash fund and provide notification of new custodian to the Cashier's Office (355-5023).
- 3. Complete and submit any pending Travel Expense Reports; Resolve any outstanding Meeting Planner Documents (MPDOs) in KFS.
- 4. Request cancellation of MSU Travel Credit Card by emailing travel@ctrl.msu.edu.

DATA SYSTEMS/RECORDS

- 1. Ask the employee to return any University records (e.g., paper, electronic, email) held in his/her work area or home office/computer to his/her supervisor.
 - a. In particular, prevent the employee from retaining, copying, or removing in any way protected health information, as defined under HIPAA. This includes, but is not limited to, any and all medical records. For assistance with HIPAA questions, contact the Office of the General Counsel, 353-3530.
- 2. Review these records for possible transfer to other staff member or archiving (e.g., paper or email communications related to federal grants).
- 3. Obtain password rights to any administrative database, software application, information system, etc., for which the employee possesses the sole access rights, and that is necessary for program or unit administration or operations.
- 4. Notify Information Technology Services about the employee's departure, so that data systems access and MSU email accounts will be terminated. Note: Official retirees are eligible to continue their MSU email accounts; students can continue their accounts for two years past graduation. For assistance, contact IT Services Support Desk, (432-6200).
- 5. Delete the employee's access to unit data systems, email servers, voice mail systems, email lists, etc.; remove any passwords or file protections (file access passwords) unique to the departing employee.
 - a. Immediately delete the employee's access to any protected health information, as defined under HIPAA. This includes but is not limited to; access to the electronic medical record system and to any email and server systems on which protected health information is communicated or maintained. For assistance with HIPAA questions, contact the Office of the General Counsel at 353-3530.

Done N/A

- 6. Delete authorization for unit-paid merit 800# internet access.
- 7. Change codes on door entry systems; deactivate building/area access; notify MSU Police to deactivate identification card access.
- 8. Provide for continuing security of confidential records (e.g., human subject research records).
- 9. Change safe combinations.
- 10. Change building directories and phone number listings.
- 11. Change names on subscriptions, institutional memberships, etc.
- 12. In cases of involuntary termination, access to the above items should be discontinued as of the time notice of termination is given. Particular attention should be given to data systems, personal health information/medical records, offices, phone systems, and restricted areas.

BUILDING SECURITY

- 1. Contact DPPS to remove any building access from employees Spartan Card.
- 2. Request the return of any keys the employee may have to rooms, desks, cabinets etc. related to the department in which the employee is separating.
- 3. Communicate the employee's separation to others within that unit/building. For example: The supervisor of the separating employee could send out a generic message regarding the employee separating from the department and include a picture (scan of the employee ID picture).

SAFETY

For assistance, contact Environmental Health & Safety (EHS) (355-0153).

- 1. Contact Occupational Health (355-9137) for employees who were in ongoing health monitoring programs, e.g., asbestos.
- 2. Determine presence of any laboratory or hazardous chemicals, gas cylinders, biological materials (e.g., animal tissue, diagnostic specimens, microorganisms, and cultures), biohazardous materials (e.g., infectious substances and CDC Select Agents), radiological materials, controlled substances, and/or hazardous wastes in the applicable work areas. Review disposition of them with the employee. For assistance, contact EHS at 355-0153.
- 3. Ensure that all research-related materials that will remain at MSU are properly labeled and are in approved containers.
- 4. In accordance with the EHS equipment release procedures, ensure that all equipment (including fume hoods, freezers, refrigerators, biosafety cabinets, centrifuges, and incubators) is cleaned and decontaminated.
- 5. Review whether unit Disaster Response Plan needs to be adjusted.

RESEARCH

- 1. Determine continuation arrangements for existing research projects/grants.
- 2. Arrange transition of laboratory notebooks for ongoing MSU research.
- 3. Complete a "Material Transfer Agreement" for any materials being removed from MSU.
- 4. Determine presence of undisclosed inventions or other intellectual property.
- 5. Determine presence of film, negatives or other original data from research settings that may be property of the University.
- 6. Identify any transition issues related to human subjects.

- 7. REQUIRED -- Employee acknowledges continuing obligation not to disclose beyond their employment at MSU any export controlled or other confidential information, technology or material, except as required by law or regulation.
- 8. Choose one of the following:
 - a. During employment at Michigan State University, employee was not involved in developing, using or handling any technology or work product involving export controlled or access-controlled technology or technical information.
 - b. During employment at Michigan State University, employee was involved in developing, using or handling technology or work product involving export controlled or access-controlled technology or technical information. (Alert MSU Office of Export Control & Trade Sanctions 432-4499)

For assistance, contact the Office of the Vice President for Research & Graduate Studies (355-0306).

TEACHING

- 1. Make transition arrangements for capturing student grades for the semester.

Employee Name: _____ Department: _____

Employee Signature: _____ Date: _____

Unit Administrator Name: _____ Department: _____

Unit Administrator Signature: _____ Date: _____

Distribution: _____ (as described below)

- Retain original in department file.
- If intellectual property issues have been identified, send a copy to the Vice President for Research & Graduate Studies.

APPENDIX C

VOUCHER SPECIMEN POLICY

VOUCHER SPECIMEN POLICY

TO: Graduate students, faculty, postdocs and anybody working on research projects

FROM: Department Chair, Collection Director, Collection Manager

SUBJECT: Voucher Specimen Policy

This policy is effective Fall 1981 - all students completing degrees during Fall term 1981 or thereafter must deposit voucher specimens. However, when possible, those who are completing degrees before Fall 1981 are encouraged to deposit voucher specimens.

At the July 16, 1980 faculty meeting a policy requiring the deposition of voucher specimens in an appropriate museum for all M.S. theses and Ph.D. dissertations was unanimously approved.

We all recognize the need for such documentation, since names change, classifications change, misidentifications can be made, and populations evolve. Hence, all of us need to preserve specimens of what we thought we were working with so they will be available in the future if questions or problems arise.

There are some obvious exceptions to this, such as purely taxonomic theses where specimens are routinely preserved, but most research projects save no specimens at all.

The deposition of voucher specimens for all research projects is strongly recommended, whether or not a thesis or dissertation is involved. Research projects involving a single species of laboratory reared animal are not exempt - a series of both males and females of the species involved must be deposited.

As part of the planning prior to carrying out your research, you should meet with the Collection Manager or Curator concerning the number of specimens you will need for deposition (10 of each sex is common), methods of mounting or preservation, date-locality labels, etc. Plan to preserve voucher specimens as you carry out your research. And - protect pinned specimens from ants, cockroaches and dermestids until they are deposited in the museum.

Specimens must be mounted/preserved in the conventional manner for the group or stage of development. NOTE: It is important that some stages (especially larvae) be killed properly or the specimens may be of little value. Check with the Collection Manager for materials and procedures that pertain to your specimens.

Specimens that do not pertain directly to the main thrust of the research efforts (residues from pitfall traps, malaise traps, etc.) should be made available to the Collection Manager to either complement the museum holdings and/or be used for teaching purposes.

Note the following:

1. **A "Record of Deposition of Voucher Specimens" form is available as a MS Word file from the Collection Manager for recording your voucher specimen information. It is to be included as Appendix 1 in all M.S. theses and Ph.D. dissertations** (see attached sample page C-7). It can also be used as a record of deposition of voucher specimens for any research project. "Appendix 1" was selected as the proper location in the thesis or dissertation so the location would be uniform, and since it does not seem to logically fit near the beginning.
2. Voucher submissions will be assigned a voucher number by the Collection Manager (such as 1981-01, 1981-02, etc.). Voucher labels printed on green paper will be provided by the Collection Manager. They will contain the following information (but will of course be much smaller):

VOUCHER SPECIMEN MICHIGAN STATE UNIV. VOUCHER NO. 1981-01 (NAME OF STUDENT)

The voucher label goes on ALL specimens, no matter what museum they are deposited in, so they can be located and tied to MSU research projects. Obviously, most will be deposited at MSU, but when some specimens are deposited in other museums, the MSU Voucher Number and label will connect the specimen with a research project at MSU and indicate that additional data on that species are available here. That is not the primary function of a voucher specimen, but the system does work both ways.

3. Publications resulting from your research. You should state that voucher specimens have been deposited in the Michigan State University A.J. Cook Arthropod Research Collection (or other museum), give the voucher number and other pertinent information.
4. All voucher specimens will be kept in a special cabinet in the main collection unless there is a special reason and agreement to do otherwise by the Collection Manager. If such an agreement is reached it is to be indicated on the "Record of Deposition of Voucher Specimens" immediately below "Entomology Museum, Michigan State University (MSU)". If all specimens are properly labeled with Voucher Labels and properly recorded in Appendix 1, they will be easy to locate.
5. All voucher specimens must bear data labels containing the normally collected data—the voucher label and/or the voucher number by itself is NOT sufficient. The data label is the upper one on pinned specimens. (They never change.)*
6. The voucher label must be beneath the data label(s). (It also will never change.)
7. All voucher specimens must bear identification (I.D.) labels (if they have been identified to genus or below) identical to the I.D. information given on the "Appendix Specimen Data Sheet(s)". I.D. labels are always on the bottom. (They sometimes change.)*

Voucher Specimen Policy, Page 3

8. All labels (Data, Voucher and Identification) must be on the specimens when they are turned over to the Collection Manager.
9. If the Collection Manager will be absent for a while, another faculty member who is familiar with the museum, usually the Museum Director or another curator, will act for the Collection Manager.

* See the next page for guidelines on data and identification label preparation and size.

INSECT LABELS

The purpose of the labels is to let others know **where** the insect was collected, **when** it was collected, **who** collected it, **how** it was collected, and **what** kind of insect it is. Labels with this information should be placed on all pinned, alcohol-stored, or slide mounted specimens.

You should consult with the Collection Manager or Curator before your voucher specimens are finally labeled. The Collection Manager has the appropriate heavy-weight, acid-free, rag paper and laser printer that should be used for most labeling and will print off all your labels for you if you wish. If you decide to print your own labels, you should have access to a computer and laser printer, and follow the guidelines shown below. If your specimens are not preserved, mounted, and labeled properly, you may be asked to correct all the problems before they are accepted.

LOCALITY LABELS

The “main” locality label should include as a minimum the following information:

- 1) STATE
- 2) COUNTY
- 3) A SPECIFIC LOCALITY, (eg. town, river, mountain or distance from a recognized landmark) that can easily be found on a map. We also encourage the use of GPS coordinates, if possible, which give very precise locations.
- 4) DATE (Day-Month-Year)
- 5) COLLECTOR
- 6) Optional: host, habitat, elevation, collecting method, or any other information which could be useful to others as to where and how the specimen was collected (see also “additional labels” below)

STATE	County
Specific Locality	
Date	
Collector	

Examples:

MICHIGAN Ingham Co. E. Lansing–MSU campus at UV light trap 16 November 1999 G.L. Parsons	MICHIGAN Clinton Co. Rose Lake Wildlife Res. Area - 2 mi E. of Bath 16 November 1999 G.L. Parsons	MICHIGAN Clinton Co. 1 mi N. of Lansing GPS N42°47 W84°32 16 November 1999 G.L. Parsons
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ADDITIONAL “LOCALITY” LABELS:

An individual label should not contain more than 5-6 lines of text, or else it will be too large. An additional label can be added for other data such as host plant, how it was collected, a specific habitat, elevation, etc. and placed just below the locality label on the pinned insect.

Examples:

Host: on goldenrod flowers	Collected by sweeping in meadow	Collected with UV light trap in spruce forest	Elev. 1500' under rocks along bank of stream
----------------------------------	---------------------------------------	---	--

IDENTIFICATION LABELS

The identification label should include:

- 1) the GENUS name
- 2) the SPECIES name (or. "sp." if undetermined)
- 3) the AUTHOR name
- 4) and the NAME of the person who made the identification along with the DATE (year) it was identified
- 5) For specimens identified only to Order or Family, those names should appear on the label in lieu of Genus-species-author.

*Megacyllene
robiniae*
(Förster)
det. G.Parsons 1999

SIZE OF LABELS

Ideally, **all labels should be no larger than about ¾ " by ½ "**. Using a word processing program on a computer you type up the label, shrink the font size down to **3 or 4 point**, and then print off the label(s), preferably from a laser printer. At this size, you should be able to get several hundred labels on a page. You should not place borders or boxes around the labels. We recommend using a proportional block font such as ARIAL or CALIBRI, which is still very readable at the reduced font size. Ideally **labels should be printed on a heavy-weight, acid-free, 100% rag paper**. Proper paper can be obtained from the collection manager if needed.

Actual size of finished labels >>>

MICHIGAN Clinton Co.
East Lansing -MSU Campus
16 November 1999
G.L. Parsons coll.
at UV light trap

Voucher Specimen
Michigan State Univ.
Voucher No. _____

*Megacyllene
robiniae*
(Förster)
det. G.Parsons 1999

For specimens stored in 70% alcohol, the labels are placed **inside the vial** with the specimens. So far, most laser-printed labels hold up very well in alcohol, but alcohol dissolves inks from ink-jet type printers. If you do not have access to a laser printer, the labels to be placed in alcohol vials should be neatly hand-printed, as small as possible, using water-proof ink.

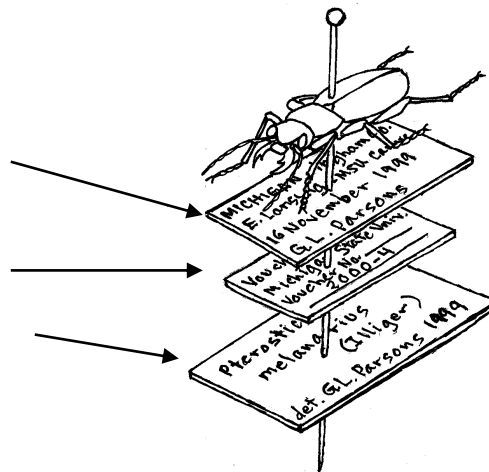
Labels to be placed on slides are usually square and are placed on either end with the specimen centered on the slide. The locality data, and voucher number should be placed on the left side, while the identification label should be to the right. You should indicate the mounting medium on one of the labels.

ARRANGEMENT OF LABELS ON A PINNED SPECIMEN

Locality label on top
(+ additional locality label if necessary below first)

Voucher No. label (green)

Identification label on bottom



FORM 1

RECORD OF DEPOSITION OF VOUCHER SPECIMENS

The specimens listed below have been deposited in the named museum as samples of those species or other taxa, which were used in this research. Voucher recognition labels bearing the voucher number have been attached or included in fluid preserved specimens.

Voucher Number: _____

(note: assigned by curator, voucher recognition labels will be printed by curator for you)

Author and Title of thesis:

Museum(s) where deposited:

Albert J. Cook Arthropod Research Collection, Michigan State University (MSU)

Specimens:

[Note: This can be in the form of a list or table that should include the family, genus-species, life stage (adult, larva, nymphs, eggs, etc), quantity of each, and preservation (pinned in alcohol, slide, etc.). If vouchers are deposited in more than one collection, indicate where each resides.]

Example:

<u>Family</u>	<u>Genus-Species</u>	<u>Life Stage</u>	<u>Quantity</u>	<u>Preservation</u>
Nymphalidae	<i>Neonympha mitchellii</i>	adult	10	pinned
Nymphalidae	<i>Neonympha mitchellii</i>	larva	5	alcohol

Additional pages can be included for long taxa lists.

Form 2

Department of Entomology
M.S. and Ph.D.

PLANNING for Voucher Specimen Collection and Deposition

Each student is required to collect, mount, label and deposit in the A.J. Cook Arthropod Research Collection specimens that document the one or more species upon which the research has been carried out. **These specimens must be taken as the research is being carried out (not as an after-thought).** Certain kinds of research, such as systematics, are exempt since all of the specimens used are normally listed in the thesis/dissertation. **This form must still be filled out.** Discussion of what and how many specimens to collect and save, and how they should be preserved and labeled must be done with your guidance committee and the Collection Manager/Curator of the A.J. Cook Arthropod Research Collection.

1. The Guidance Committee and the Collection Manager/Curator have discussed and agreed on the voucher specimen collection, preservation, labeling and deposition procedures for the research of _____ as follows:

Guidance Committee:

_____	_____
Date	Date
_____	_____
Date	Date
_____	_____
Date	
_____	_____

Collection Manager/Curator Date

Student Date

Distribution:

Original – Student’s file

Copies to Major Professor, Guidance Committee, Collections Manager, Student

APPENDIX D

A STATEMENT ON THE Ph.D. RESEARCH PROPOSAL DEFENSE:

PURPOSES, PROCEDURES AND PHILOSOPHY

Department of Entomology

The Ph.D Research Proposal Defense is used to determine if the student should be encouraged to proceed in a doctoral program, and, if so, to determine any weakness that exists in background knowledge which may be strengthened by including appropriate courses in the doctoral program. It is taken as soon as feasible, but usually about three semesters after the student enrolls in the Ph.D. program if conducting laboratory oriented research, or about one semester after the completion of the first summer of preliminary field work.

The pre-qualification meeting. Soon after the Ph.D. guidance committee has been approved by the Chairperson, major professor and the student, a short meeting should be scheduled by the student to explore with the committee their plans for Ph.D. research and the academic program coursework. At this and perhaps other pre-qualification meetings the student has the opportunity to gain feedback from the faculty prior to the formal preparation of the Ph.D. research proposal. It is an excellent opportunity to interact with the faculty and learn of their philosophies and approaches to research and graduate education. All students should have at least one of these meetings before the end of the second semester in residence.

The research proposal. The dissertation proposal should be written as though it was to be submitted to NSF, the USDA Competitive Grants Program, or other granting agencies. Therefore, it must be comprehensive, including rationale, objectives, methodologies, literature review and budget, if appropriate. It should be given to the guidance committee one to two weeks prior to the Research Proposal Defense.

The research proposal should also be accompanied by proposed academic course work. The committee should be informed of previous academic training experiences by discipline (see summary sheet in Appendix E). Special efforts should be taken to indicate linkages between the dissertation proposal and the academic program. That is not to say that these components must be linked, but where linkages exist they should be given and explained.

The Research Proposal Defense examination. It is the student's obligation to contact all committee members and schedule this examination. The department's Graduate Program Assistant should be notified of the examination well in advance so an announcement can be circulated to the faculty at least one week prior to the exam taking place, and the necessary forms can be sent to the student and major professor.

The examination will be conducted orally and will consist primarily of a formal presentation of the research proposal. It is usually best for the research proposal to be presented first, after the committee has been given a few introductory comments about student background and career goals.

The guidance committee should be viewed at this examination much as one would view a grant proposal review panel. It is the student's objective to convince the panel that it is a good proposal and worthy of support. The guidance committee may not

agree to support (accept) the proposal at the first meeting, but, like a grant proposal panel, will probably acknowledge interest in the proposal with acceptance subject to redrafting and further presentation and discussion.

The proposal should be presented in a formal fashion, but the student should expect interruptions when committee members desire additional information or wish to pursue a related point. The guidance committee will use this presentation as one measure of the student's ability to orally present scientific materials. Students who appear weak will be encouraged to get additional speaking experience.

During the oral presentation, the goal is to convince the committee that the student is Ph.D. material and knows how to plan original research. The committee will be particularly interested in learning of the student's skill in bringing forth pertinent information and responding intelligently to matters of concern.

Students should expect to be examined on academic work relating to key points made in the dissertation proposal. For example, a student indicating the use of a Latin Square design could very well expect questions on the statistical designs for experiments of a field or laboratory nature. Weaknesses in this aspect of the examination may well necessitate additional course work or other academic experience.

The guidance committee will be especially interested in assessing how well the student has thought out the overall system in which their research proposal fits. In other words, the committee will be very much interested in the big picture within which the research proposal resides.

The student should present the committee with rationale for selection of proposed academic courses. A short discussion of alternate courses or plans which have been considered usually proves worthwhile to the committee.

Follow-up sessions of the qualification examination may be necessary before acceptance. These are usually needed for reasons relating to the 1) content and organization of the material presented, 2) ability of the student to interact at a philosophical level, 3) quality of proposal presentation, and 4) knowledge base for conduct of proposed research. A follow-up session should be scheduled by the student within one semester of the original meeting. I

APPENDIX E

GUIDELINES FOR RECOGNITION OF PROFESSIONAL ACCOMPLISHMENTS

Department of Entomology

A Policy approved by vote of the vote of the faculty on March 30, 1981

GUIDELINES FOR RECOGNITION OF PROFESSIONAL ACCOMPLISHMENTS

Department of Entomology

References: Ethics Committee Report of July 18, 1980; Resolution of the Academic council of October 28, 1980; Amendment of Section 4.5 of the Department Bylaws passed on January 27, 1981.

A. Introduction

The relationships between faculty, students and staff in the Department of Entomology at MSU are complex and varied. As individuals work on various projects, the origin of ideas, the development of project strategies, the actual performance of specific tasks and the final analysis and publication of data all take place within rather loosely defined protocols. Authorship on publications is one way of acknowledging some of the activities cited above. The questions of who is listed, in what order and how, are pertinent to developing productive relationships in research activities. This set of guidelines defines some of the factors to be considered in determining credit for work and suggests ways to provide credit. All situations have not been defined. The responsibility for determining proper credit rests with each group of workers and they must clearly agree upon their own arrangements.

B. Authorship of Published Papers

As a general rule, the person who writes the paper should be the senior author.

In cases of papers from student theses and dissertations, the student is generally the senior author and the major professor is the junior author. Other contributors may be listed by agreement as co-authors. Faculty may be senior author of such work when they write the papers. This type of authorship should be agreed upon by all parties.

Extension bulletins, teaching aids, and other similar papers are generally a synthesis from many areas, including original research and published or unpublished data. Authorship is that of the writer but credit should be given, including co-authorship, where appropriate (see section D).

C. Acknowledgement Other Than Authorship

Many publications cite help from individuals or agencies in footnotes or pre/post-paper acknowledgements. The citations indicate help in specific areas where the type or amount of input was judged insufficient or inappropriate for joint authorship. Examples in our department include labor, secretarial or editing, reviewing, graphics, photography, electron microscopy, statistics, loan of materials, use of data (published or unpublished), ideas, etc.

1. (a) Where work has been done at MSU, the department and university should be given credit even if the individual(s) is (are) no longer at MSU. The authors should be listed as:

John/Jane Doe*, Department of Entomology, Michigan State University, etc.

The footnote can then read:

* current address....

- (b) Where a recognized campus facility is involved (Computer Center, Center for Electron Optics, etc.), a pre or post ...

"We thank the Computer Center (names if desired) for assistance...."

type of reference should be used.

- (c) Where individual help has been rendered a similar citation or an inclusion in the text...(insects provided by...) might be sufficient.

2. Recognition of "hired" labor.

It does not appear that all inputs to a research program need to formally be acknowledged. Where routine, prescribed tasks are carried out by individuals (students or others) this need not be cited. Where the involvement exceeded this sort of assistance the question of acknowledgement is left to the project leader. Certainly, acknowledgement is rarely inappropriate and may lead to increased involvement in future projects.

D. Use of Materials of Others

1. Use of published materials.

Most published materials are covered under copyright. The right to duplicate such materials must be obtained from the copyright holder and acknowledgement must be given. Short excerpts (usually 100 words or fewer) can usually be used with acknowledgement of source, but it is good policy to obtain written permission of the copyright holder before duplicating any part of the copyrighted material.

2. Use of unpublished data.

Use of term papers, tables, and other data by individuals other than the originators requires permission prior to use. While statutes may not exist to cover each situation, custom and ethics require written or oral agreement of such material. Where slides provided by others are being used in oral presentations it

usually is not possible to acknowledge each use. Such use should be cleared, however, with the contributors prior to use.

3. Teaching handouts or presentations.

The less formal presentations involved in teaching have led to laxity in acknowledgment of authorship. Where materials are being copied and distributed every effort should be made to cite origins. Verbal presentations, again, present unique situations that may allow less rigorous acknowledgements. Signing and dating handouts is recommended to keep "track" of authorship.

APPENDIX F

ENTOMOLOGY RECR PLAN

Responsible Ethical Conduct of Research (RECR) Plan

Department of Entomology
Michigan State University
January 2024

Background: Training in the Responsible Ethical Conduct of Research (RECR) is essential for all scholars and professionals. An understanding of the issues concerning the conduct of research in an increasingly complex world is now critical to successfully navigate the research landscape. A plan to provide a foundation for RECR was developed by the Graduate School, the Vice President for Research and Graduate Studies Office, and college associate deans for graduate education. The plan is based upon the principle that a basic understanding of issues will be gained through didactic training and periodic reinforcement through discussion. It should provide a foundation for all graduate students pursuing a career in research and will meet most, if not all, federal agency granting requirements.

Students supported by NSF, NIH, or USDA grants may be required to complete additional training to meet the timeline and content requirements. In addition, students engaged in research involving human subjects or animal use must complete the Michigan State University training modules for those subjects before submitting Institutional Review Board (IRB) or Institutional Animal Care and Use Committee (IACUC) approvals. These modules should be completed in addition to the Department of Entomology RECR training.

Training Requirements: Documented RECR training is a graduation requirement for all MSU graduate students. Minimum RECR training consists of the following.

Year 1. All students must complete four Collaborative Institutional Training Initiative (CITI) on-line training modules within the first year of enrollment in their program. These modules are:

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

Discussion Based Training.

Six hours of discussion-based education are required. Master's Plan A & B students must complete this requirement before graduation. Ph.D. students must complete this requirement before finishing their Comprehensive Examinations and entering candidacy status. Four options are available:

- Students can enroll in ENT 802, "Nature and Practice of Science". This is a 2-credit course. A portion of ENT 802 meets the RECR discussion-based training requirement. ENT 802 is taught every spring semester.

- Students can enroll in ENT 804, “Scientific Communication”. This is a 2-credit course. A portion of ENT 804 meets the RECR discussion based training requirement. ENT 804 is taught every fall semester.
- Students can enroll in FOR 802, “Forestry Science Research”. This is a 2-credit course. A portion of FOR 802 meets the RECR discussion based training requirement. FOR 802 is taught every fall semester.
- Students can participate in the [Graduate School RECR Workshop Series](#). A minimum of four Graduate School RECR workshops must be taken to meet the discussion-based training requirement.

Year 2. Plan A Masters and Ph.D. students are required to complete 3 supplemental CITI Online Training Modules in Year 2 of their program. This list will not be visible on a student’s CITI page until the first four required modules have been completed. These modules must be completed in Year 2, not before, to count toward this year 2 requirement. The modules that can be used to complete this requirement include:

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

Year 3 and beyond. All Ph.D. students must complete a total of three hours of annual refresher training each year after year two until graduation. Completing the following activities for a total of three hours fulfills this requirement:

- Take CITI modules not previously taken to fulfill Year 1 or 2, or another year’s refresher requirement.
- Complete two [Graduate School RECR workshops](#) not previously taken.
- The Center for Statistical Training and Consulting offers seminars and workshops regularly (at least one each semester) that can fulfill Annual Refresher RECR Education requirements. Details on what is offered each semester can be found at <https://cstat.msu.edu/events>. Only workshops/seminars that are noted as “Available for RECR credit” will count towards the refresher requirement.
- Participate in Department/College Workshops, brown-bag luncheons, or group discussions that cover RECR related topics.
- One-on-one discussions between the student and their advisor.

IMPORTANT NOTE: Plan on taking the required CITI modules in the years they are required when using modules to fulfill annual refresher training. Taking CITI modules early will not prevent you from having to take refresher training in future years and you will not be able to re-take them later to fulfill refresher requirements.

Completion of RECR training is a requirement for graduation. Your RECR is tracked through the Student Information System,

Overview of RECR Requirements

Degree	Year 1	Face-to-face	Year 2	Year 3 forward
M.S. – Plan A	X	X	X	
M.S. – Plan B	X	X		
Ph.D.	X	X	X	X

To complete the basic and supplemental CITI modules, follow these steps:

1. Go to the [CITI Program website](#). Click ‘Log In’ in the upper right hand corner. Then click “Log in through My Institution.” Log in to CITI using ONLY your MSU NetID and password once you are an active graduate student.
2. (for first-time MSU CITI users) Follow the [‘Get Started’ instructions from the MSU’s Office of Research Regulatory Support \(ORRS\)](#).
3. Under “Courses Ready to Begin”, click “Start” next to **MSU Graduate School RCR Requirements.**”
4. Complete the 4 basic modules by the end of your first year.
5. For Master’s plan A and doctoral students, complete 3 modules from the “Supplemental Modules” listed on this page. (Master’s: due before graduation; Doctoral: due before completing comprehensive exams and advancing to candidacy).

Please contact the Department of Entomology’s Graduate Assistant, Heather Lenartson-Kluge (lenartso@msu.edu) with any questions you may have.

APPENDIX G

Graduate Student Academic Grievance Hearing Procedures

For the Entomology Graduate Program

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 Entomology Graduate Program has established the following Hearing Board procedures for adjudicating graduate student academic grievances and complaints. (See GSRR 5.4.)

I. JURISDICTION OF THE ENTOMOLOGY GRADUATE PROGRAM HEARING BOARD:

- A. The Hearing Board serves as the initial Hearing Board for academic grievance hearings 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.)
- B. Students may not request an academic grievance hearing based on an allegation of incompetent instruction. (See GSRR 2.2.2)

II. COMPOSITION OF THE HEARING BOARD:

- A. The Program Hearing Board pool will comprise the regular faculty of the Department and six graduate students elected by the Graduate and Undergraduate Entomological Student Society (GUESS) no later than the end of the tenth week of the spring semester. The graduate student members of the Hearing Board pool serve one-year terms with reappointment possible. The Hearing Board pool should include both faculty and graduate students. (See GSRR 5.1.2 and 5.1.6.)

- B. The Chair of the Hearing Board shall be the faculty member with rank who 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.)
- C. The Program will train hearing board members about these procedures and the applicable sections of the GSRR. (See GSRR 5.1.3.)

III. REFERRAL TO THE HEARING BOARD:

- A. After consulting with the instructor and appropriate unit administrator, graduate students who remain dissatisfied with their attempt to resolve 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) 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.)
- B. At any time in the grievance process, either party may consult with the University Ombudsperson. (See GSRR 5.3.2.)
- C. 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.)
- D. 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.)
- E. 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.)
- F. A written request for an academic grievance hearing must (1) specify the specific bases for the grievance, including the alleged violation(s), (2) identify the individual against whom the grievance is filed (the respondent) and (3) state the desired redress. Anonymous grievances will not be accepted. (See GSRR 5.1 and 5.3.6.)

IV. PRE-HEARING PROCEDURES

- A. After receiving a graduate student's written request for a hearing, the Chair of the Department will promptly establish a hearing board from the Program Hearing Board pool and refer the grievance to the Chair of the Hearing Board. (See GSRR 5.3.2, 5.4.3.)
- B. Within **5** class days, the Chair of the Hearing Board will:
1. Forward the request for a hearing to the respondent and ask for a written response;
 2. 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. In addition to conflict of interest challenges, either party can challenge two hearing board members without cause (GSRR 5.1.7.c);
 3. Rule promptly on any challenges, impanel a Hearing Board and send each party the names of the Hearing Board members. 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.). Decisions by the Hearing Board chair or the College Dean (or designee) on conflict of interest challenges are final;
 4. Send the Hearing Board members a copy of the request for a hearing and the respondent's written response, and send all parties a copy of these procedures.
- C. Within **5** class days of being established, the Hearing Board shall review the request, and, after considering all requested and submitted information:
1. Accept the request, in full or in part, and promptly schedule a hearing.
 2. Reject the request and provide a written explanation to appropriate parties; e.g., lack of jurisdiction. (The student may appeal this decision.)
 3. 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.)
- D. 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.

- E. 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 (1) time, date, and place of the hearing; (2) the names of the parties to the grievance; (3) a copy of the hearing request and the respondent's reply; and (4) the names of the Hearing Board members after any challenges. (See GSRR 5.4.7.)
- F. 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 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 visa versa. (See GSRR 5.4.7.1.)
- G. 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.)
- H. 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.)
- I. Either party to the grievance hearing may request a postponement of the hearing. The Hearing Board may either grant or deny the request. (See GSRR 5.4.8.)
- J. 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.
- K. 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.)
- L. 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.)

V. HEARING PROCEDURES:

- A. The Hearing will proceed as follows:
 - 1. 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 a majority of the Hearing Board, based on a "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.)

2. If the complainant 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.)
3. If the respondent fails to appear in person or via an electronic channel at a scheduled hearing, the Hearing Board may postpone the hearing, hear the case in the respondent's absence, or dismiss the case. (See GSRR 5.4.9-b.)
4. 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.)
5. To assure 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.)
6. 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.
7. 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, and the respondent's advisor, if any.

8. 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.
9. Presentation by the Respondent's Witnesses: The Chair recognizes the respondent's witnesses, if any, to present, without interruption, and statement directly relevant to the respondent's case. The Chair then recognizes questions directed at the witnesses by the Hearing Board, the complainant, and the complainant's advisor, if any.
10. 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.
11. 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.
12. Final questions by the Hearing Board: The Hearing Board asks questions of any of the participants in the hearing.

VI. POST-HEARING PROCEDURES

A. 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.)

B. Decision:

1. In grievance (non-disciplinary) hearings involving graduate students in which a majority of the Hearing Board finds, based on a "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 or School Director. Upon receiving the Hearing Board's recommendation, the Department Chair or School Director 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 so inform the Chair or Director. 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.)

2. 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 or School Director 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 and 5.4.12.3)

C. 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 support 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)

VII. APPEAL OF THE HEARING BOARD DECISION:

- A. Either party may appeal a decision by the Hearing Board to the College Hearing Board for cases involving (1) academic grievances alleging violations of student rights and (2) alleged violations of regulations involving academic misconduct (academic dishonesty, professional standards or falsification of admission and academic records.) (See GSRR 5.4.12.)
- B. 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.)

- C. 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." The request also must include the redress sought. Presentation of new evidence normally will be inappropriate. (See GSRR 5.4.12.1, 5.4.12.2 and 5.4.12.4.)

VIII. RECONSIDERATION:

If new evidence should arise, either party to a hearing 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 on a new hearing. (See GSRR 5.4.13.)

IX. 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 on 4/20/2015

APPENDIX H

G.U.E.S.S. BYLAWS

BYLAWS
Revised 7 February 2022
Graduate and Undergraduate Entomology Student Society (GUESS)

Article I. NAME

The entomology student organization shall be known as Graduate and Undergraduate Entomology Student Society (GUESS).

Article II. OBJECTIVE

GUESS seeks to represent the graduate and undergraduate student body within the Department of Entomology, as well as support the development of professional skills among students, foster an environment for the exchange of scientific ideas, and create a social network for the student body.

Article III. MEMBERSHIP

All current MSU entomology students are considered members of this organization.

Non-Discrimination Clause. GUESS will not discriminate on the basis of age, color, gender, gender identity, disability status, height, marital status, national origin, political persuasion, race, religion, sexual orientation, veteran status, or weight. Only MSU students may be officers and/or voting members.

Article IV. DUES

Section 1. Membership dues

1. There shall be no dues for membership in GUESS.

Article V. OFFICERS

Section 1. Duties of the officers

1. The **President** shall chair general meetings, shall be the official spokesperson for the society, prepare general meeting agendas, and coordinate organizational functions.
2. The **Vice President** shall assume the presidency in the absence of the president and shall coordinate the standing committees.
3. The **Secretary** shall record the minutes of the general meetings and any executive committee meetings.

4. The **Treasurer** shall oversee the management and reporting of GUESS finances. This person shall be responsible for bank account maintenance and developing the annual budget.

Section 2. Nomination of officers

1. Nominations occur in the spring semester
2. Nominations for officers shall be made by any GUESS member
3. Persons nominated shall be present at the time of nomination or notified prior to election

Section 3. Election of officers

1. Election of new officers will occur during the spring term by written ballot.
2. Newly elected officers shall assume their duties at the end of spring term.
3. Candidates must be elected by a majority of votes cast.
4. Officer positions will be appointed by the **President** for persons who must leave their position during their term. The interim officer may be elected during the regular election.

Section 4. Rules governing officers.

1. Officers shall serve for a term of one year, or until their successors are elected. One year is defined as the first day following the end of the spring semester until the last day of the following spring semester.
2. Officers may not hold the chairpersonship of a standing GUESS committee.
3. Officers may hold the chairpersonship of an ad-hoc GUESS committee.
4. Officers may hold student representative positions on faculty committees.
5. Officers must remain in good standing as determined by GUESS members. Officers not in good standing may be removed from office by majority vote.
6. In the event that **President** is removed or must leave office, the **Vice President** assumes the position until the next election.

Article VI. FACULTY ADVISOR

Section 1. Definition and Role

The role of the **Faculty Advisor** is to serve as a liaison between GUESS and the entomology faculty and staff, and advises students on department and university policy. The Faculty Advisor must be a member of the MSU faculty or staff.

Section 2. Term

The Faculty Advisor serves a one-year term (as defined in Article IV, Section 4.1), or until a successor is elected. There is no limit to the number of terms a faculty member can serve as Faculty Advisor.

Section 3. Nomination and Approval

The **Faculty Advisor** is nominated by officers of GUESS and must be approved by two-thirds of those present at the first general GUESS meeting of the fall semester.

Section 4. Evaluation

The **Faculty Advisor** will be reviewed annually after spring semester. It is the duty of the new incoming GUESS Officers and Student Representatives to re-evaluate the **Faculty Advisor**. Prior to the first general GUESS meeting of the fall semester, GUESS Officers and Student Representatives shall have met to discuss potential **Faculty Advisors** for the academic year.

Article VII. STUDENT REPRESENTATIVES

Section 1. Faculty Meeting Representative

1. Definition and role: The **Faculty Representative** serves as a liaison between GUESS and the entomology faculty and staff and is responsible for casting votes at the faculty meetings representing the student body. The **Faculty Representative** must be a member of GUESS.

Section 2. Faculty Committee Representatives

1. Definition and role: The Curriculum, Graduate, Seminar, Awards, and DEI Committee representatives serve as liaisons between GUESS and the entomology faculty and staff at their respective faculty committee meetings. These positions are not required to be filled. Representatives may serve on more than one committee at a time.

Section 3. COGS Representative

1. Definition and role: The COGS (Council of Graduate Students) Representative serves as a liaison between GUESS and COGS, attends COGS meetings and casts votes representing GUESS.

Section 4. Undergraduate Representative

1. Definition and role: The Undergraduate representative attends a majority of Bug Club meetings and acts as a liaison between GUESS and Bug Club.

Section 5. Nomination and Approval

1. Nominations are held at the same time as officer nominations and elected during the general GUESS election each year.

Section 6. Term limit

1. Representatives serve a one-year term (as defined in Article IV, Section 4.1) or until a successor is elected.

Article VIII. MEETINGS AND VOTING

Section 1. General Meetings

1. Meetings occur monthly during each Fall and Spring semester.
2. The agenda will be sent out a week prior to each meeting, along with a reminder.
3. Current officers will serve as mentors to officers-elect during the Spring semester. Newly-elected officers assume their duties the day after the end of the Spring semester.

Section 2. Ad-hoc and Standing Committee Meetings

1. Committee meetings are called by the chair of each committee.
2. Ad-hoc committee meetings are called as needed, by an officer or appointed chair.
3. Meeting announcements and/or minutes will be reported to executive officers following the conclusion of committee meetings.
4. Verbal updates will be provided to all GUESS members at general meetings.

Section 3. Voting

1. All members shall have one vote in elections and motions. Votes may be cast in general meetings, or online ballots may be conducted.

Article IX. STANDING COMMITTEES

Section 1. Titles and duties of the standing committees:

1. The Executive Committee is composed of the executive officers (President, Vice President, Secretary, and Treasurer). It shall serve to interpret the bylaws, address

motions for amendments to the bylaws, and have the power to call special general meetings. Members of the Executive Committee may volunteer to lead social events for GUESS, but this is not a requirement nor expected.

Section 2. Rules governing committees

1. Committee membership is voluntary at the beginning of each term. The size of the committee is open. The internal structure of a committee is defined by the committee members.
2. Committee Chairpersons are elected by members of the new committee formed after each election. Committee chairpersons may hold no other elected posts in the organization at the same time they hold a committee chairpersonship. They may not be re-elected to the chairpersonship of the same committee.

Section 3. Ad hoc committees

1. Members of GUESS may petition to form ad hoc committees as needed. Ad hoc committees are approved by the Executive Committee and follow the same rules governing all committees (as defined in Article IX; Section 2). The chair of the ad hoc committee must provide committee reports at all GUESS meetings for the duration that the committee is formed.

Article X. AMENDMENTS

These bylaws may be amended by a vote of two-thirds of the members of the organization present at any regular meeting or at a special meeting called for that purpose. Members shall be notified of adopted bylaw amendments.

Bylaws shall be reviewed yearly by incoming elected officers preceding their first meeting in office.

Article XI. UNIVERSITY POLICY

This organization shall abide by all applicable policies instituted by Michigan State University.

APPENDIX I

SUGGESTIONS FOR PREPARING CURRICULUM VITAE

In the job market a well organized and neatly presented c.v. can make the difference between serious consideration of your candidacy and instant rejection.

For professional employment purposes a c.v. can omit certain kinds of information which may be desirable for publicity or similar uses. Too much detail makes the reading of hundreds of vitae difficult for those who also must examine them.

We have worked out the enclosed suggested format and the following suggestions:

1. ADDRESS

Be sure to include your zip code and area code number.

2. EDUCATION

Do not include high school. College or graduate school grade point averages are superfluous.

3. PROFESSIONAL EMPLOYMENT

Omit summer or short term jobs unless relevant.

Omit elaborate course and research project description.

Omit months in employment chronology. 9/98-6/99 is more confusing to read than 1998-1999.

Give only title of position rather than an elaborate description of duties.

Distinguish between teaching assistantships and regular faculty appointments, such as lecturer or instructor.

4. PROFESSIONAL ACTIVITIES

Include only those activities which contribute to your professional picture. Undergraduate activities and community service projects may round out the picture of a candidate but are not a substitute for your professional activities.

5. PUBLICATIONS

This should include only already completed publications, or those in press. Addresses, invited papers, etc. should be listed separately. Do not include book reviews or other contributions to local newspapers, house organs, etc. unless they constitute your major occupation. Omit references to projected work.

6. REFERENCES

References should be recent ones with complete addresses, and should be listed only with the consent of the person named. This avoids negative references and embarrassment to candidates. Also, while references from the family minister or a good neighbor are interesting for personal reasons, they are irrelevant for professional evaluation.

You may check verbally whether people are willing to write a letter of recommendation for you, but it is necessary to follow up in writing. State clearly the purpose for which the letter is intended- i.e., for a general file of your credentials and oriented to either faculty or administrative posts (or both), or for a specific professional opening. With your written request, enclose a stamped envelope addressed to the intended recipient of the reference and a stamped, self-addressed postcard to let you know when the recommendation has actually been sent.

7. EXTRANEIOUS DETAIL

Much material may be of interest in rounding out a candidate's personal life but its place in a curriculum vitae is of doubtful value. The following are examples of information some consider extraneous.

- a) References to health or physical appearance
- b) References to your marital status
- c) Hobbies
- d) Job objectives (should go in a covering letter)
- e) Geographical preferences
- f) Children's names, ages or academic status
- g) Social Security number
- h) Any statements in the first or third person

The following is a horrible but typical example of much superfluous detail:

Secondary Education: Flower Hill Academy, El Paso, Texas. Graduated with high distinction in June, 1984; elected to National Honor Society, Res Gestae Chapter, Flower Hill Academy.

Undergraduate Education: Western College, Oxford, Ohio, 1984-87. Pennsylvania State College, State College, Pa. Summer 1987. (Took off a year because of ill

health). St. Ambrose College, Davenport, Iowa. Fall 1988-June 1989. Graduated cum laude with a major in history and a minor in music. Dean's list for two semesters, elected to Phi Lambda Xi National Honorary Society.

Graduate Education: Juniper-Sierra University, 1992 to Present. Major in historio-anthropology (cultural, social, ethnic, history of linguistics) and minor in psycho-historical studies. Elected to Tau Omega Mu (national women's honorary) in 1994. Doctoral examinations passed and admitted to candidacy for the Ph.D. degree 3 June 1999. My advisor will be Dr. Hugo R. Barnett, director of dissertations.

INSTEAD OF:

St. Ambrose	History	B.A. 1989
Juniper-Sierra U.	Anthropology	M.A. 1994
Juniper-Sierra U.	Hist.-Anthro	ABD 1999

8. GENERAL APPEARANCE

All vitae and correspondence should be typed or laser printed. Use good bond paper of standard 8 1/2 x 11" size, and a good clear font or typeface to ensure good reproduction of the c.v. You are likely to need to 100-200 copies of your c.v. in the job-hunting process; the best and cheapest duplicating process is laser printing.

9. COVERING LETTER

No matter how many places you are applying to, do not under any circumstances send form letters. Take the trouble to find out the chairperson's name and what the general strengths and interests of the department or institution are. Emphasize your possible contribution to their program.

While many of the points mentioned above may sound out of place or foolish, they have all been pulled from many of the vitae in our files!

HIGHER EDUCATION RESOURCE SERVICES CURRICULUM VITAE

Name

Address Home Telephone
 Office Telephone

Date and Place of Birth (Optional)

Education

Institution Major Degree and Year

(If incomplete Ph.D. give date degree is expected)

Ph.D. Dissertation Title

(Give name of advisor)

Fellowship

(Graduate and Post-doctoral)

Honors

(Omit number of terms on Dean's list, GPA's, or undergraduate fellowships)

Membership in Professional Societies

Professional Employment

(Include only rank or title, department, name of institution and dates. List last position first).

Other Professional Activities

Seminars and Invited Lectures

Grants and Awards

Advisory Committees

Service on Boards, etc.

Research-Teaching Interests

Short description of current and planned research or teaching interests. (A few phrases will do).

Publications

1. Books
2. Papers (sample reprints of your best papers are good)

(Append separately if list is long).

References

List Names and Addresses of three Current References or the Institutional Placement Service if your dossier includes current references.

APPENDIX J

IMPORTANT INFORMATION FOR INTERNATIONAL GRADUATE STUDENTS

I-20s:

In July 2016 the Department of Homeland Security Student and Exchange Visitor Program (SEVP) issued new policy guidance affecting provisional admission of students and the issuing of I-20s. The guidance limits a university's flexibility in offering provisional admission to international students. Here are the implications of this guidance when it comes to admitting international students.

If students are admitted on a provisional basis because of language proficiency requirements, they can be issued an I-20 for language studies only. This I-20 is limited to a maximum of 2 years. Students must be tested at the English Language Center upon arrival and begin studies in the English level determined by that test. Once students meet the departmental requirements for language, they may be issued a degree-seeking I-20. If students do not meet the stated language proficiency requirement for department/program admission at the end of two years, they cannot continue to enroll for courses. Provisional admission can be granted **ONLY** for language deficiencies. **Regulations will not allow the issuing of an I-20 for provisional admissions for academic reasons.**

ENROLLMENT REQUIREMENTS:

It is very important that international students are enrolled in enough credits to maintain student status. The number of credits that are required is dependent on a student's degree level and financial support.

Degree level	Non-graduate assistantship funding (e.g. fellowships, scholarships, personal funds)	Graduate assistantship Funding
Masters	9 credit minimum	6 credit minimum
PhD	6 credit minimum	3 credit minimum
PhD who has passed Comprehensive Exams	1 credit minimum	1 credit minimum

RESEARCH CREDIT ENROLLMENT LIMITS:

International students who receive financial support from sponsors outside of MSU may be required to be enrolled in a specified number of credits each semester by their sponsor. Many times, research credits are used to reach these enrollment minimums. However, MSU places a limit on the number of research credits that can be taken during graduate degree programs. Careful course and research credit planning must be done between graduate students and major professors to avoid exceeding these limits.

The maximums are:

For Masters Students – 24 Research Credits (ENT 899). A minimum of 6 research credits are required in order to be awarded an MS degree. A maximum of 10 research credits can be applied towards the 30 credits required to earn an MS degree.

For PhD Students – 36 Research Credits (ENT 999). A minimum of 24 research credits are required by MSU in order to be awarded a PhD degree.

J-1 STUDENT DS-2019 EXTENSION:

An international students on a J-1 visa may need to request an extension on their DS-2019 in order to complete their degree. The extension process should begin a minimum of **two months prior** to the DS-2019 expiration date. Contact Entomology's Graduate Secretary to begin the extension process.

The Office for International Students and Scholars (OISS) contact information is:

Michigan State University
International Center
427 N. Shaw Lane, Room 105
East Lansing, MI 48824
Phone: 517-353-1720
oiss@msu.edu
<http://oiss.isp.msu.edu/>